

GRAIN & FEED JOURNALS

CONSOLIDATED

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A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

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St. Louis

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Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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Grain & Feed Journals
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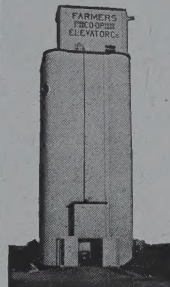
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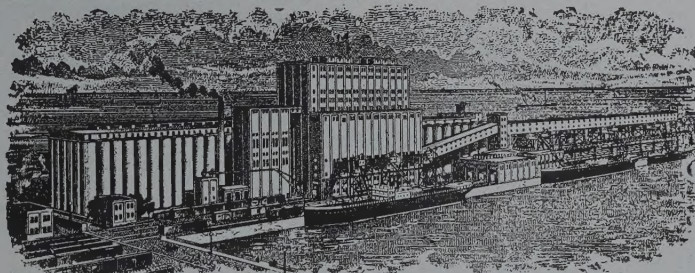
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RED CLOUD, NEB.—Red Cloud Flour, Feed and Elevator. Terms cash. Mrs. Risa and Herbert Smith, owners. Box 368, Red Cloud, Nebr.

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IOWA—Feed mill and feed business for sale. Complete equipment, 5 car warehouse. Bears rigid inspection. Property clear. Charles City Hammer Mill, Charles City, Ia.

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MISSOURI Flour and feed business for sale. 50 bbl. daily capacity mill; feed business doing about \$100,000 volume annually. On railroad in prosperous town. Priced to sell. Owner wishes to retire. Edward H. Keller, Belle, Mo.

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FOR SALE—20 h.p. Fairbanks-Morse semi-Diesel oil engine, with full equipment, good running condition. Allison & Co., Middletown, Ill.

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Flour — Feed — Grain
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(Form 3—Duplicating)

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"Date B/L, Initials, Car Number, Seal Numbers, Kind and Grade, Station From, Weight, Bushels. Billed shipper's order notify; draft for \$.....; made through bank of to apply on sale of bushels made"

Fifty white bond originals, machine perforated, easily removed without tearing, and 50 manila duplicates. Heavy pressboard, hinged top cover, with two sheets of carbon. Size, 5½x8¾ inches. Weight, 8 ozs. Order Form 3 SN. Single copy, 80c; three copies, \$2.20, plus postage.

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Name of Firm.....

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..... bus. State.....

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ROSCOE AJAX Oat Huller for sale, in good condition. HonEGGers, Forrest, Ill.

FOR SALE—120 12x6 V type elevator buckets. Hammond, Co-op. Grain Co., Hammond, Ill.

FOR SALE—One new, large automatic seed dusting machine. Ed Coe Seeds, Ames, Iowa.

CORN CUTTER & Grader—has motor—used very little. 91N8, Grain & Feed Jnls., Chicago.

FOR SALE—Large size steam Hess Drier, good condition. Bushnell Co-op. Co., Bushnell, Ill.

ATLAS Dust Collector for sale, No. 137, 6 ft. in diameter; good as new. Allman Feed, Wheaton, Mo.

FEED MIXER—one-ton—floor level feed—has motor good as new. Write 91N9, Grain & Feed Journals, Chicago 4, Ill.

EMERSON DOCKAGE TESTER for sale, complete with sieves. The Farmers Grain & Milling Co., Wellington, O.

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SHAFFER Electric Moisture Tester for sale. Practically new, has been used very little. Sharp Elevator & Mill, Adrian, Ill.

NO. 5 MONITOR CLEANER for sale. Good condition. Several screens for it. The Farr Company, Box 737, Greeley, Colorado.

FOR SALE—One 48 inch and one 24 inch Cleland oat huller; both in very good condition. P. H. Gust Elevators, Fergus Falls, Minn.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 91N11, Grain & Feed Journals, Chicago 4, Ill.

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GENERAL ELECTRIC induction motor for sale, 220 volts, 60 cycles, 100 amps. Speed 1150, 40 hp. complete with starter box. Burlington Feed Co., Burlington, Wis.

MOLASSES MIXERS, brand new. Only a few left. No priority required. Can be operated with your present vertical feed mixing equipment. Low price. Send for details and prices. Brower Mfg. Co., 284 No. 3rd, Quincy, Ill.

FOR SALE—Sixteen inch Diamond Huller, ball bearing; cracker; Speed King; crusher, with 16" burr, latest type; No. One Miracle Ace Molasses mixer, complete with adjustable feeder. Pedelty Blower Co., Mason City, Ia.

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10 ton Fairbanks scale with recording beam, in fine condition. \$300.
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FOR SALE

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1—No. 915 Columbus gas furnace for 530 B.T.U. Carburetted water gas.
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20—Foot tread Clipper bean picking tables.
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Guaranteed rebuilt electric motors, pumps, air compressors. Largest stock in Illinois outside of Chicago. Will take your equipment in trade. Also offer emergency motor repair and rewinding service. Distributors for Wagner motors, Goulds pumps, Sullivan and DeVilbiss air compressors. We offer free engineering advice on your problems. Write us without obligation. Ask for Bulletin No. 23. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

The Last Word in Clark's Direct Reduction Grain Tables

is a combination of our popular 7-card set, Form 3275 Spiral and our new Truck Loads to Bushels, Form 23,090 Spiral which reduce by 10 pound breaks any weight of grain from 600 to 23,090 pounds to bushels of 32, 48, 56, 60, 70 and 75 lbs.

Carefully printed from large clear type, using jet black ink, showing the bushels directly beside the weight of grain reduced and distinctly separated by rules and spaces so as to prevent errors in reading. The most practical, the most helpful grain reduction tables ever published. Their use will return their cost every day of the busy season in labor and time saved and errors prevented.

The spiral binding keeps the cards flat, and in regular sequence, and prevents the exposure of more than one grain at a time so it is easy to keep wide open the tables for the grain being received.

Both sets of tables are printed on heavy six ply tough check of durable quality, 11x13 inches with marginal index. Shipping weight, 3 lbs. You can get both sets described below for \$2.85, plus postage.

Form 3275 Spiral includes tables giving direct reductions of any weight of grain, from 600 to 12,090 lbs. to bushels of 32, 48, 56, 60, 70 and 75 lbs. by 10 pound breaks. This set of Clark's Direct Reduction Grain Tables weighs 2 lbs. Price \$1.70, plus postage. Order 3275 Spiral.

Truck Loads to Bushels. Just what you have been wanting. Now let the big trucks come, so you can determine with a glance the number of bushels and pounds over in each load truck delivers. These six Clark's Direct Reduction Grain Tables continue the reductions made by Form 3275 Spiral, and have a range from 12,100 to 23,090 pounds. Reductions are by 10 pound breaks into bushels of 32, 48, 56, 60, 70 and 75 lbs. Shipping weight, 2 lbs. Price, only \$1.70 plus postage. Order No. 23,090 Spiral.

Direct Reduction Grain Tables

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32 lbs. per bushel—OATS

Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels	Weight (Lbs.)	Bushels
600	18.75	1210	37.81	1820	56.88	2430	75.94
610	18.91	1220	38.13	1830	57.19	2440	76.25
620	19.06	1230	38.44	1840	57.50	2450	76.56
630	19.22	1240	38.75	1850	57.81	2460	76.88
640	19.38	1250	39.06	1860	58.13	2470	77.19
650	19.54	1260	39.38	1870	58.44	2480	77.50
660	19.69	1270	39.69	1880	58.75	2490	77.81
670	19.85	1280	40.00	1890	59.06	2500	78.13
680	19.99	1290	40.31	1900	59.38	2510	78.44
690	20.15	1300	40.63	1910	59.69	2520	78.75
700	20.31	1310	40.94	1920	60.00	2530	79.06
710	20.47	1320	41.25	1930	60.31	2540	79.38
720	20.62	1330	41.56	1940	60.63	2550	79.69
730	20.78	1340	41.88	1950	60.94	2560	80.00
740	20.94	1350	42.19	1960	61.25	2570	80.31
750	21.09	1360	42.50	1970	61.56	2580	80.63
760	21.25	1370	42.81	1980	61.88	2590	80.94
770	21.41	1380	43.13	1990	62.19	2600	81.25
780	21.56	1390	43.44	2000	62.50	2610	81.56
790	21.72	1400	43.75	2010	62.81	2620	81.88
800	21.88	1410	44.06	2020	63.13	2630	82.19
810	22.03	1420	44.38	2030	63.44	2640	82.50
820	22.19	1430	44.69	2040	63.75	2650	82.81
830	22.35	1440	45.00	2050	64.06	2660	83.13
840	22.50	1450	45.31	2060	64.38	2670	83.44
850	22.66	1460	45.63	2070	64.69	2680	83.75
860	22.81	1470	45.94	2080	65.00	2690	84.06
870	22.97	1480	46.25	2090	65.31	2700	84.38
880	23.12	1490	46.56	2100	65.63	2710	84.69
890	23.28	1500	46.88	2110	65.94	2720	85.00
900	23.44	1510	47.19	2120	66.25	2730	85.31
910	23.59	1520	47.50	2130	66.56	2740	85.63
920	23.75	1530	47.81	2140	66.88	2750	85.94
930	23.91	1540	48.13	2150	67.19	2760	86.25
940	24.06	1550	48.44	2160	67.50	2770	86.56
950	24.22	1560	48.75	2170	67.81	2780	86.88
960	24.38	1570	49.06	2180	68.13	2790	87.19
970	24.54	1580	49.38	2190	68.44	2800	87.50
980	24.69	1590	49.69	2200	68.75	2810	87.81
990	24.85	1600	50.00	2210	69.06	2820	88.13
1000	25.00	1610	50.31	2220	69.38	2830	88.44
1010	25.16	1620	50.63	2230	69.69	2840	88.75
1020	25.31	1630	50.94	2240	70.00	2850	89.06
1030	25.47	1640	51.25	2250	70.31	2860	89.38
1040	25.62	1650	51.56	2260	70.63	2870	89.69
1050	25.78	1660	51.88	2270	70.94	2880	90.00
1060	25.94	1670	52.19	2280	71.25	2890	90.31
1070	26.09	1680	52.50	2290	71.56	2900	90.63
1080	26.25	1690	52.81	2300	71.88	2910	90.94
1090	26.41	1700	53.13	2310	72.19	2920	91.25
1100	26.56	1710	53.44	2320	72.50	2930	91.56
1110	26.72	1720	53.75	2330	72.81	2940	91.88
1120	26.88	1730	54.06	2340	73.13	2950	92.19
1130	27.03	1740	54.38	2350	73.44	2960	92.50
1140	27.19	1750	54.69	2360	73.75	2970	92.81
1150	27.35	1760	55.00	2370	74.06	2980	93.13
1160	27.50	1770	55.31	2380	74.38	2990	93.44
1170	27.66	1780	55.63	2390	74.69	3000	93.75
1180	27.81	1790	55.94	2400	75.00		
1190	27.97	1800	56.25	2410	75.31		
1200	28.12	1810	56.56	2420	75.63		
1210	28.28	1820	56.88	2430	75.94		
1220	28.44	1830	57.19	2440	76.25		
1230	28.59	1840	57.50	2450	76.56		
1240	28.75	1850	57.81	2460	76.88		
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1380	30.94	1990	62.19	2600	81.25		
1390	31.09	2000	62.50	2610	81.56		
1400	31.25	2010	62.81	2620	81.88		
1410	31.41	2020	63.13	2630	82.19		
1420	31.56	2030	63.44	2640	82.50		
1430	31.72	2040	63.75	2650	82.81		
1440	31.88	2050	64.06	2660	83.13		
1450	32.03	2060	64.38	2670	83.44		
1460	32.19	2070	64.69	2680	83.75		
1470	32.35	2080	65.00	2690	84.06		
1480	32.50	2090	65.31	2700	84.38		
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1540	33.44	2150	67.19	2760	86.25		
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1600	34.38	2210	69.06	2820	88.13		
1610	34.54	2220	69.38	2830	88.44		
1620	34.69	2230	69.69	2840	88.75		
1630	34.85	2240	70.00	2850	89.06		
1640	35.00	2250	70.31	2860	89.38		
1650	35.16	2260	70.63	2870	89.69		
1660				2880	90.00		
1670				2890	90.31		
1680				2900	90.63		
1690				2910	90.94		
1700				2920	91.25		
1710				2930	91.56		
1720				2940	91.88		
1730				2950	92.19		
1740				2960	92.50		
1750				2970	92.81		
1760				2980	93.13		
1770				2990	93.44		
1780				3000	93.75		

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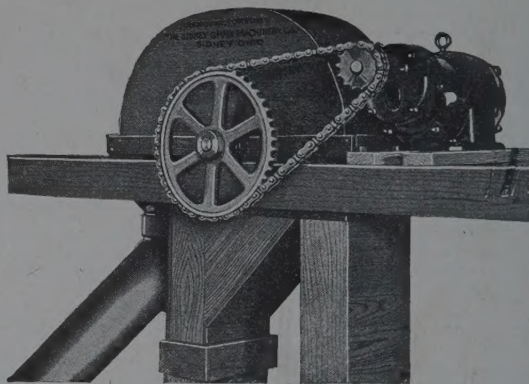
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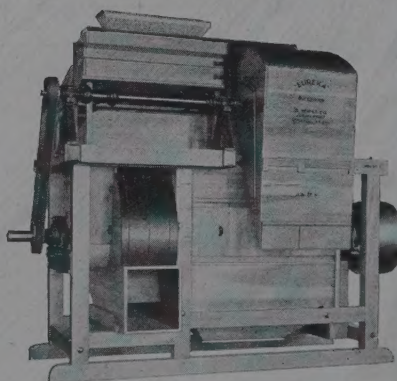


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AMERICAN ELEVATOR &
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THE GRAIN WORLD
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PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

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QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, 4, ILL., SEPT. 22, 1943

MILLERS have not despaired of ever having that long-talked-of soft winter wheat ceiling.

THE PROPOSED AMENDMENT to the Federal Pure Food and Drug Act which would prohibit the use of more than one-half of one per cent of soybean flour in bread is so ridiculous it seems a wonder that any intelligent member of Congress should be willing to introduce such a food bill, much less vote for it.

STEALING OATS from cars in the railroad yards at St. Joseph, Mo., again calls attention to the need of careful cooeping and safeguarding of all shipments. Losses due to this petty larceny reduces the railroad's revenue and the shipper's profit. We hope that every shipper who discovers a car leaking grain in transit will promptly report the car's initials, number, direction and the kind of grain contained so as to help the shipper when he files a claim for the loss.

THE NUMBER OF reports of fires starting in the cupola gives conclusive evidence of lack of care and frequent inspection especially before closing the plant for the night. Machinery which is not kept thoroughly lubricated is sure to develop much friction and heat.

WHILE ELEVATOR WORKERS who serve long hours get tired and careless, it seems that many of them could avoid suffering from the same accidents as fellow workers who are injured and killed in accidents repeatedly reported in our news columns. Do read and profit by the disastrous experience of your fellow workers.

OPENING OF A new, a rebuilt or an over-hauled elevator with a real reception day can be made a splendid advertising event if well planned and advertised to acquaint prospective customers with the improved facilities for serving them. Refreshments, entertainment and prizes help to attract a large crowd.

ONE MOST ENCOURAGING sign of better business for the country grain elevator operator is the building of more substantial and better equipped offices. The sheds used 50 years ago are rapidly disappearing because the enterprising occupants insist on having comfortable and convenient business accommodations, which they so richly deserve.

FORGING FARMERS' NAMES to checks issued for wheat without receiving the wheat has been practiced so many times by country elevator agents, it is surprising that any other elevator managers should attempt to get cash by embezzling the funds of their employers. One of the late offenders is credited with securing \$20,000, but, of course, was quickly discovered and arrested.

EXCHANGE members will be pleased at the decision by the U. S. Circuit Court setting aside the order by the Secretary of Agriculture in the Nichols case, published elsewhere, since the Court found that offers in the pit by outcry can not be held to be bucketing or offsetting, tho it may happen that different representatives of the same commission firm take both ends of the trade.

THE GOVERNOR OF THE STATE OF ILLINOIS has just issued an appeal to property owners and fire fighters to observe Fire Prevention Week, October 3rd to 9th, with double extra earnestness and determination. The 15,440 fires occurring in Illinois during the fiscal year ending June 30th resulted in the death of 240 humans and injuries to 590 others. Every property owner fully realizes that this was a criminal waste of life and property and should stimulate the interest of every property owner in combating this destructive element.

FALLING MANLIFTS are reported so frequently in our news columns with permanent injuries to occupants we feel duty bound to persistently warn owners against using these old style manlifts without frequent and thorough inspection and repairs. Safety appliances are much cheaper than limbs and lives.

BURSTING BINS due to overloading continue to be reported in the Northwest grain areas because of poor construction, and, of course, the operators of collapsing plants are temporarily put out of business, principally because the barn builders are still getting contracts that merit the thoughtful engineering of experienced elevator builders.

FLAXSEED GROWERS who are promised \$2.85 a bushel should not need any additional encouragement to plant a still larger acreage next year, and the elevatorman who keeps his eyes wide open for a generous supply of choice seed can depend upon getting a profitable price for it next spring, even tho he is not equipped to clean and dry the choice samples.

SO MANY PLANTS are damaged by high winds as reported in our news columns each month, elevator designers and builders must give this hazard more serious consideration and design every elevator so as to offer greater resistance to high winds which occur every month of the year. These losses are increasing in number and merit serious consideration by all owners of elevators and mills, as well as by designers and builders of such plants.

THE PRACTICE of shutting the elevator one half day each week for cleaning and repairs is becoming common in districts where the shortage of manpower has reduced the elevator's working force or business has been unusually brisk. Clean surroundings and prompt service attract business, while dirt and broken machinery drive trade to plants kept in orderly condition. It is a pleasure to welcome increased patronage when you know you can serve efficiently.

THE LONG ESTABLISHED PRIVILEGE of holding grain at diversion points is in danger of being abolished by the O.D.T. which insists that the transporting efficiency of the box car supply is greatly reduced by the practice of holding carloads of grain at many diverting points. The spring wheat section has been under investigation and the delay of cars at several hold points disclosed the holding of so many cars the O.D.T. was disposed to abolish the privilege immediately, but shippers are to be given another trial and the future of this privilege will depend largely on the number of cars delayed at hold points and the length of time the cars are held.

FIRES AND EXPLOSIONS continue to occur in feed grinding plants principally because feed mills are not protected by magnets that can be depended upon to extract all iron. Naturally feed plant operators are averse to inviting the wrecking of their grinding machinery so take every precaution to protect their mills with magnetic separators.

EASY it is for the bureaucracy to declare that wheat from the head of the lakes must go to Buffalo by rail on account of the vessel shortage; but the New York elevators are equipped to handle grain coming in by lake, having ample unloading capacity of marine legs and comparatively almost nothing to unload cars. A heavy investment to remodel receiving facilities would be useless after the war.

Freedom Needed to Encourage Private Enterprise

The farsighted members of many different business organizations are studiously making plans for encouraging business and providing employment after the boys come back, that will insure relief from state socialism and give permanent encouragement to private enterprise.

The Federal Government through its establishment of many boards, buros and commissions has taken over many business activities that can be much more efficiently and economically conducted by private enterprise.

The many blunders of the inexperienced bureaucrats have proved very expensive for the taxpayer and also very discouraging to men of experience who have long served the consuming public most efficiently. The ever normal granary resulted in a great loss to the taxpayers without any real help to producers.

Every grain merchant knows full well that, if the irrevocable law of supply and demand were still in force, prices of grains would be much higher than the ceilings the O.P.A. has attempted to establish. The grain producer and the grain merchant have both been convinced that the supply and demand of every grain now restrained by price ceilings, would be more equitable and insure the production of ample supplies without governmental acreage allotments or price restrictions.

One trouble that has handicapped the politicians striving to regulate farming and the grain business is their striving to ignore economic welfare and under the ruse of anti-inflation have sacrificed national welfare to personal politics.

So far postwar planning has not helped the situation one whit and it will not until politics is completely divorced from the accepted plan and private enterprise encouraged to go forward without the handicap of governmental domination.

Failures in the Grain Business

The establishment of ceiling prices for different commodities handled by country elevator operators has proved most discouraging to many firms and recent numbers of the Journal have contained notices of an unusual number of changes in operating firms and in the retirement of many old established firms from the grain business. This may have been due to Governmental competition and regulation, but not to financial distress.

According to Dun & Bradstreet, the number of commercial failures the first six months of this year was only 2,401 with total liabilities of \$43,223,000, while during the entire year of 1942 only 9,405 firms failed with liabilities aggregating \$109,100,000, which was the smallest in 37 years.

The commercial agency statisticians do not consider a firm a commercial failure unless it goes out of business through bankruptcy, assignment or voluntarily quits with loss to its creditors.

During the last two years the average grain merchant has conducted his grain business most satisfactorily. Even tho the Government interference with business and with central market exchanges has been most discouraging, still most of the grain firms continue to hold on in the hope of soon having release from Governmental restrictions and regulations.

Few new elevators have been erected during the past eighteen months, principally because of the difficulty experienced in obtaining materials and labor to construct new facilities. This will, of course, result in extra activity in the building of elevators as soon as the grain merchants are able to get essential materials and manpower needed to construct and operate the elevators, and thereby facilitate the more efficient marketing of farm crops.

The urgent need of supplementary storage to properly protect and market the crops of '41 and '42 did result in the construction of some temporary storage, but many additional storage units would have been erected regardless of cost if materials and men were available.

While the war emergencies have proved a most discouraging handicap to grain merchants who are ready and anxious to help the grain growers to more efficient marketing, yet the scarcity of men and materials has prevented many experienced grain merchants from re-entering the business and hence the infant mortality has been unusually low.

The razing of old and idle elevators added to the number of elevator firms who have consolidated with their competitors has resulted in a continued reduction in the number of firms engaged in the grain shipping business. Fixing prices "to check inflation" has put an end to cutthroat competition and thereby reduced financial losses.

When the boys come back from licking Hitler we feel sure essential materials and manpower will be obtainable, grain handling facilities will be greatly improved and the number of grain dealers increased.

Must Civilians Give Up Bread?

Last year the urgent appeal of the Department of Agriculture for the production of more livestock in the hope of increasing the supply of meat for armed forces and Allies did result in such an increase of livestock that the most pressing problem for the last six months has been to get desirable feed for the enlarged herds and flocks.

The feeding of wheat, which ordinarily is considered suitable only for human consumption, has quickly reduced the stocks of wheat and caused observing economists to wonder what the Government will do for human food when all of the surplus stock of wheat has been fed.

An appeal for a greatly increased acreage of corn for 1944 planting has been made, but no arrangement has been entered into with the weatherman to favor the corn planters in their spring work, so it is a wild speculation to formulate any estimate of the resulting crop.

Many districts of the corn belt will not produce near their average crop of corn this year, because of unfavorable weather, and it may be even more disastrous in the final result for 1944, so it would seem the part of wisdom to import feedstuffs whenever possible and let us conserve our supply of wheat for human consumption.

The civilian population has not done much complaining on the regimentation of its food supply, but if the Government willfully effects a still greater reduction in our supply of wheat, it may cause food riots that will be more than disturbing.

The American citizen depends so largely upon wheat for sustenance it will not be easy to divert his daily diet to coarser products. Then, too, the weatherman might be favorable to a reduction of the wheat crop for 1944 even though growers are given the liberty of planting as many acres as they desire.

Wheat consumers will not look with complacency on the continued feeding of their favorite food to livestock. The bureaucratic restrictions have so greatly reduced the supply of meat, butter and other standard foods they will resent any further reduction in their standard of living.

SEVEN NEW soybean processing plants are reported in this number so that some beans of the 43 crop will not have to be shipped long distances in order to reach modern plants for extracting the oil.

Protecting Property from Lightning

Eleven fires reported in our news columns, this number, credit two to lightning, four to friction and one to cob burn.

Many of the lightning losses reported in the last year have been traceable directly to lightning entering over power wires. Among those reported in our news columns have been the following: C. C. Greene, Clarksville, Ia.; Ball and Gunning Milling Co., Webb City, Mo.; Shellabarger Mill & Elevator Co., Salina, Kan.; Marion Milling Co., Marion O.; William Kelly Milling Co., Hutchinson, Kan.; Shawnee Milling Co., Shawnee, Okla.; Midland Flour Milling Co., Newton, Kan.

No doubt, there are a great many other fires caused by lightning getting into the elevator over the power wire, but the specific cause of many fires was not reported. While this hazard can be greatly reduced, if not prevented, by the installation of surge capacitors and lightning arrestors, it is somewhat difficult to obtain such equipment, however, persevering power users are obtaining such equipment and protecting their property against this hazard.

No grain dealer is willing that his property shall be exposed to extra hazards, and, naturally, cautious property owners exercise every precaution to protect their property against lightning in every way possible.

Years ago many elevators and mills were burned as a direct result of being struck by lightning, but so many grain handling plants are now equipped with standard lightning protection that fires traceable to lightning are seldom reported.

Stepped on Cobs and Fell

The Taylor Grain Co., of Van Alstyne, Tex., defendant, was given judgment in a suit brought by a woman who stepped on corn cobs on the driveway and fell and was injured.

The jury erroneously found that the cobs had been placed on the sidewalk by an employee of the company; that the company permitted the cobs to remain on the sidewalk. Justice Tom Suggs of the Grayson County District Court said the verdict was against the evidence, there was no proof the cobs had been placed there by an employee.

The cobs were stored on a part of the lot more accessible from another driveway. No vehicles loaded with cobs had been seen near defendant's premises for six weeks prior to the accident.

A lady residing on Main street, two doors north of the grain elevator testified that she saw plaintiff fall at a place on the sidewalk where, the day before, some children were playing with corn cobs. It was not shown that anyone connected with defendant company had any knowledge of the existence of cobs upon the sidewalk where Mrs. Brinlee fell.

"As a general rule," the court said, "an abutting owner may not be held responsible for a sidewalk condition not caused by himself. The duty to maintain the sidewalk in a reasonably safe condition rests upon the city." The Court of Civil Appeals of Texas affirmed the judgment in favor of defendant.—166 S. W. Rep. (2d)

Pit Trades Are Not Offsetting

The U. S. Circuit Court of Appeals for the first circuit on rehearing recently set aside the order by the Secretary of Agriculture that the license of Nichols & Co. as a commission merchant in futures be suspended for a period of 90 days, for alleged offsetting of trades.

The hearing was before judges Magruder, Woodbury and Mahoney, the latter delivering the unanimous opinion of the court.

The earlier ruling by the court had been based on a master's report to the Secretary of Agriculture. Judge Mahoney said:

The evidence indicates that Nichols & Co. would ordinarily execute customers' orders in the following manner: Wells, who was the floor broker for the partnership, would have two orders in hand; an order to buy and an order to sell the same future at the same price. In most cases one side, the purchase or sale, was given to another exchange member for execution and Wells executed the other side. It frequently resulted that Wells made the trade with the member who had been given the opposite side.

The Secretary found, however, that "every such trade was made by outcry in the ring and the two brokers who had partnership orders to purchase and sell did not always make the trade with each other." In the opinion we characterized the participants in these trades as friendly brokers. Nichols & Co. has taken the position all along that the statute was aimed at bucketing and that transactions which took place on the floor of the Exchange were not prohibited under the Act. We disagreed with this contention and stated that off-setting has a broader signification than bucketing. We are still of this view. That is to say, we believe that off-setting may take place not only in the office of the broker but also on the Exchange floor.

A further contention is made, however, that the Secretary found that every trade was made by public outcry and that therefore he did not find that Nichols & Co. had engaged in any collusive practice in order to stifle competition. When the opinion was first written I was of the view that there was something objectionable in the practice of two brokers executing opposite sides of customers' trades, knowing the origin of the trades. Without casting any aspersions upon the honesty of Nichols & Co., I took the position that inherent in such a practice was the possibility of stifling competition; that it was fraught with danger to the best interest of the customers and that since the statute was remedial we should interpret it in a manner consistent with the best interest of the public. This despite the fact that the Secretary did not make any finding that Nichols & Co. thru its brokers did a dishonest act.

Upon fuller consideration on rehearing, my brethren think that in arriving at a definition of the offense of offsetting our starting point should be namely, that the matching of opposite buying and selling orders by a futures commission merchant in his office is off-setting within the meaning of the statute, as well as quite possibly being a form of "bucketing"; that in the absence of any statutory definition or illuminating legislative history as to the meaning of off-setting, we should look to the nature of the transaction admittedly comprehended by the term. The effect of matching orders in the office is that they are not offered openly and competitively on the market, which was the customer's rightful expectation, and the customer does not obtain an exchange contract as a result of such matching. But the result of the practice carried on by Nichols & Co. was that buying and selling orders met on the exchange, as two orders must necessarily meet to consummate any trade. Since the Secretary of Agriculture made a finding that all the trades were executed by public outcry and in the ring, it cannot be

said that the orders were matched with the object or result of avoiding open and competitive bidding. The customers received exchange contracts.

My brethren are of the view that the Secretary has shifted from his original position. They say that in his decision finding the partnership guilty of off-setting the Secretary seemed to be of the view that Nichols & Co. was guilty of off-setting merely because it was the futures commission merchant employed in the execution of the orders on both sides of the trade; that the "offset" was the meeting of the particular two orders in the resulting trade. After reciting the facts he stated: "Both brokers were acting for the partnership, which leaves it in the position of handling both sides of a trade. Altho it has put the trade thru the ring, it has filled orders of two customers by causing them to offset each other."

At the rehearing, however, the Secretary argued that the futures commission merchant may properly appear on both sides of the trade provided there is an open and competitive offering; but that as a matter of law there can be no open and competitive offering where it is known by the two brokers, or perhaps by one of them, that the two orders had been placed in their respective hands by the same futures commission merchant.

The government did not satisfactorily explain how the state of mind of the brokers, which the Secretary in his opinion did not seem to regard as a decisive factor, could affect the quality of the transaction as off-setting. In the opinion of my brethren the government's view on rehearing results in an over-refined definition of off-setting hardly justified by the vague statutory language "to fill such order by off-set against the order or orders of any other person." They are of the opinion that the fact that there is a possibility that brokers may engage in a collusive practice when they both know the origin of the trade, is not a basis for characterizing as "off-setting" all transactions where two friendly brokers are used.

While I still feel that there lurks in the practice above described the possibility that customers will not be fully protected, I am satisfied to go along with my brethren in their conviction that neither the statutory language nor the legislative history supports our original interpretation of the term off-setting.

Therefore, an order will be entered setting aside the Secretary's order dated Dec. 29, 1941.

No Marketing Quotas on 1943 Corn

The War Food Administration announced formally Sept. 18 that marketing quotas will not be proclaimed for the 1943 corn crop. Such quotas may be proclaimed under certain conditions specified in the Agricultural Adjustment Act of 1938. It has been determined that such conditions do not exist this year.

The September crop report and the Oct. 1 carry-over estimate indicate a total corn supply for the 1943-44 marketing year of 3,415,000,000 bus. Altho this supply is near the record supply of last year, because of the large livestock population it is under the level which would make it necessary to proclaim quotas. Thus, producers will not vote in a corn marketing quota referendum this year.

The Cement Institute and 75 member corporations who produce and distribute more than three-fourths of the portland cement manufactured in this country, and their officials and agents, have been ordered by the Federal Trade Commission to cease and desist from engaging in or continuing any combination or conspiracy to sell cement at prices arrived at by use of their multiple basing-point delivered-price system.

Grain & Feed Dealers National Ass'n at St. Louis

Sept. 26-27

Tentative Program Nat'l Ass'n

The 47th annual meeting of the Grain and Feed Dealers National Ass'n will be held in the Statler Hotel, St. Louis, Mo., Sept. 26-27.

While this is not set up as a formal convention program, all members will be welcomed at the sessions on Sept. 27. There will be no entertainment features, so there will be no registration fee for those attending.

Officers, members and others who plan on attending this annual meeting should make railroad and hotel reservations AT ONCE. Don't wait; you may be disappointed if you do not get reservations quickly, especially on the railroads. The Statler Hotel will be able to take care of all who register promptly.

The meeting on Sept. 26 will be for only secretaries and officials of affiliated associations. Officers of the National Ass'n will meet that evening at dinner and for a short business session. The dinner will honor P. E. Goodrich of Winchester, Ind., one of the veterans of the National Ass'n work. Mr. Goodrich was president of the National Ass'n from 1918 to 1920. Committees of the National Ass'n will meet on the afternoon of Sept. 26.

The conferences on Sept. 27 will be open to all members and guests. These conferences will avoid formal speeches and will buckle down to the business of discussing feed and grain trade problems, with discussions led by men from the trade. The luncheon meeting at noon, and the dinner on the evening of Sept. 27, will be open to all who care to attend. The tentative program follows:

SPECIAL MEETINGS SEPT. 26

Registration opens at Statler Hotel.
Secretaries and Officers of Affiliated Ass'ns.
Federation of Cash Grain Commission Merchants Ass'n.

Luncheon, Secretaries and Officers, Committees, Directors, etc.

National Country Elevator Committee.
National Feed Jobbers Committees.
National Retail Feed Committee.
Executive Committee of the National Ass'n.
Business meeting, Board of Directors of the National Ass'n.

Annual dinner, Directors and Ex-Presidents of the National Ass'n.

OPEN MEETINGS SEPT. 27

Meeting, Nominations Committee.
Opening of the General Session. Welcome to St. Louis, by C. H. Williamson, President, the St. Louis Merchants' Exchange.

Annual address, by President S. L. Rice, Metamora, O.

Opening of Feed Affairs Panel Discussion. Each discussion leader will make an opening statement on the situation faced in his field of the trade, then the session will be open to questions-and-answers, so that all members and friends present may take part. Discussion leaders will include the following: E. C. Dreyer, St. Louis, Mo., chairman of the Feed Relations Committee, presiding; E. F. Labudde, Milwaukee, Wis., chairman of the National Feed Jobbers Committee; David K. Steenbergh, Milwaukee, Wis., chairman of the National Retail Feed Committee; Max Cohn of Buffalo, N. Y., representing eastern feed interests; Emory Cocke, Atlanta, Ga., representing Southern feed interests; W. D. Flemming, Minneapolis, Minn., manager of the Northwest Retail Feed Ass'n; F. E. Boling, Chicago, Ill., representing the Feed Industry Council; Atherton Bean of the Office of Price Administration, Washington, D. C.

Luncheon. (Buy tickets at the Registration Desk before 10 a. m.)

Luncheon speaker, Leroy M. Godfrey, manager of the Grain Department, Corn Products Refining Co., Chicago, Ill. Subject: The Corn Confusion.

General Session. Grain Trade Affairs. Panel discussion.

Discussion leaders on this program will include H. M. Stratton, Milwaukee, Wis., chairman, Terminal Elevator Grain Merchants Ass'n; Frank M. Bell, Omaha, Nebr., pres., The Federation of Cash Grain Commission Merchants Ass'ns; J. F. Leahy, Kansas City, Mo., chairman, The National Grain Trade Council; S. W. Wilder, Cedar Rapids, Ia., chairman, The National Country Elevator Committee; N. E. Dodd, Washington, D. C., Administrator, the Agricultural Adjustment Administration; William McArthur, Washington, D. C., chief of the Grain Division, Commodity Credit Corporation; Earl M. Combs, Chicago, Ill., President, the Cash Grain Ass'n of Chicago.

Annual Business Meeting of the National Ass'n.

Report of the Nominations Committee, and election of officers.

Meeting of the newly elected Board of Directors.

Annual dinner meeting. The Retiring President will introduce the newly elected President.

One of the featured discussions of the annual meeting will follow this dinner, and will be by President Philip Raymond O'Brien of the Chicago Board of Trade, dynamic leader in grain trade affairs.

All guests at the convention are asked to register; there will be NO CHARGE for registration. Those who wish may attend the noon luncheon and evening dinner meetings by purchasing tickets at the registration desk. Luncheon tickets must be purchased before 10 a. m., and dinner tickets by noon, on Sept. 27.

Presidents of Grain & Feed Dealers National Ass'n

E. S. Greenleaf, Jacksonville, Ill., 1896-7.
Warren T. McCray, Kentland, Ind., 1897-1900.
B. A. Lockwood, Des Moines, Ia., 1900-2.
Theo. P. Baxter, Taylorville, Ill., 1902-3.
H. S. Grimes, Portsmouth, O., 1903-4.
R. B. Schneider, Fremont, Neb., 1904-5.
M. F. Dunlap, O'Fallon, Mo., 1905-6.
Henry L. Goemann, Mansfield, O., 1906-7.
Chas. England, Baltimore, Md., 1907.
A. E. Reynolds, Crawfordsville, Ind., 1907-9.
A. G. Tyng, Peoria, Ill., 1909-10.
E. M. Wayne, Delavan, Ill., 1910-12.
Chas. D. Jones, Nashville, Tenn., 1912-14.
Lee G. Metcalf, Illiopolis, Ill., 1914-16.
E. C. Eikenberry, Camden, O., 1916-18.
P. E. Goodrich, Winchester, Ind., 1918-20.
Ben. E. Clement, Waco, Tex., 1920-22.
F. E. Watkins, Cleveland, O., 1922-24.
Fred G. Horner, Lawrenceville, Ill., 1924-26.
C. D. Sturtevant, Omaha, Neb., 1926-28.
A. S. MacDonald, Boston, Mass., 1928-29.
Bert Dow, Davenport, Ia., 1929-30.
H. A. Butler, Omaha, Neb., 1930-32.
Geo. E. Booth, Chicago, Ill., 1932-34.
F. A. Derby, Topeka, Kan., 1934-35.
S. W. Wilder, Cedar Rapids, Ia., 1935-37.
O. F. Bast, Minneapolis, Minn., 1937-39.
Elmer H. Sexauer, Brookings, S. D., 1939-41.
S. L. Rice, Metamora, O., 1941-
R. B. Bowden, St. Louis, Mo., executive vice pres., 1939-

Secretaries of National Ass'n and Their Years of Service

W. H. Chambers, Hepburn, Ia., 1896-7.
Charles S. Clark, Chicago, Ill., 1897-1901.
Geo. A. Stibbens, Coburg, Ia., 1902-5.
John F. Courcier, Toledo, O., 1906-13.
Chas. Quinn, Toledo, O., 1914-36.
R. B. Bowden, St. Louis, Mo., 1936-37.
E. G. Kiburtz, St. Louis, Mo., 1937-
R. B. Bowden, St. Louis, Mo., executive vice pres. and acting sec'y, 1940.
Ron Kennedy, St. Louis, Mo., 1940.
Roger P. Annan, St. Louis, Mo., 1940.

Dates of Past National Ass'n Conventions

The times and places of the annual meetings of the Grain Dealers National Ass'n and its successor, the Grain & Feed Dealers National Ass'n, and number of men in attendance, have been as follows:

1896, Nov. 9, Chicago, Ill., Ass'n organized, 38.
1897, June 29-30, Des Moines, Ia., 200.
1898, Nov. 2-3, Chicago, Ill., small.
1899, Oct. 18-19, Chicago, Ill., good.
1900, Nov. 20-21, Indianapolis, Ind., 185.
1901, Oct. 2-3, Des Moines, Ia., 2,234.
1902, Oct. 1-3, Peoria, Ill., 314.
1903, Oct. 6-8, Minneapolis, Minn., 300.
1904, June 22-24, Milwaukee, Wis., 325.
1905, June 2-3, Niagara Falls, N. Y., 143.
1906, June 4-5, Chicago, Ill., 215.
1907, Oct. 2-3, Cincinnati, O., 319.
1908, Oct. 15-17, St. Louis, Mo., 700.
1909, Oct. 6-8, Indianapolis, Ind., 272.
1910, Oct. 10-12, Chicago, Ill., 250.
1911, Oct. 9-11, Omaha, Neb., 369.
1912, Oct. 1-3, Norfolk, Va., 200.
1913, Oct. 14-16, New Orleans, La., 241.
1914, Oct. 12-14, Kansas City, Mo., 364.
1915, Oct. 11-13, Peoria, Ill., 910.
1916, Sept. 25-28, Baltimore, Md., 365.
1917, Sept. 24-26, Buffalo, N. Y., ...
1918, Sept. 23-25, Milwaukee, Wis., 975.
1919, Oct. 13-15, St. Louis, Mo., 1,450.
1920, Oct. 11-13, Minneapolis, Minn., ...
1921, Oct. 3-5, Chicago, Ill., 1,029.
1922, Oct. 2-4, New Orleans, La., 452.
1923, Oct. 1-3, Des Moines, Ia., 404.
1924, Sept. 22-24, Cincinnati, O., 532.
1925, Oct. 12-14, Kansas City, Mo., 903.
1926, Oct. 18-20, Buffalo, N. Y., 596.
1927, Oct. 10-12, Omaha, Neb., 1,250.
1928, Sept. 24-26, Boston, Mass., ...
1929, Oct. 14-16, Peoria, Ill., 725.
1930, Oct. 13-15, Chicago, Ill., 341.
1931, Oct. 12-14, Houston, Tex., ...
1932, Sept. 19-21, French Lick, Ind., 218.
1933, Sept. 18-20, Chicago, Ill., 725.
1934, Oct. 15-17, Memphis, Tenn., 397.
1935, Sept. 19-21, St. Louis, Mo., 672.
1936, Oct. 12-13, Milwaukee, Wis., 600.
1937, Oct. 11-12, Dallas, Tex., 412.
1938, Sept. 26-27, Toronto, Ont., 206.
1939, Oct. 2-3, Minneapolis, Minn., 410.
1940, Oct. 14-15, Louisville, Ky., ...
1941, Sept. 15-16, Toledo, O., 739.
1942, Oct. 12-13, Excelsior Springs, Mo. Meeting of officials substituted for abandoned convention.
1943, Sept. 26-27, St. Louis, Mo.

Omaha, Neb.—The Omaha alcohol plant of the Farm Crops Processing Corp. will be equipped to use either gas or oil. It may be supplied with gas by the Northern Natural Gas Co., which has made application to construct a submarine pipeline to serve the plant.

WFA Orders on 1943-Crop Soybeans

The War Food Administration has announced the issuance of two orders covering restrictions on purchases and use of soybeans and cottonseed. The orders, Commodity Credit Corporation Orders No. 6 and 7, became effective Sept. 17.

The soybean order, C.C.C. Order 6, is designed to promote the orderly marketing of soybeans by (1) providing for the proper allocation of soybeans for crushing and for other uses, (2) promoting the production of soybean oil and oil meal, and (3) preventing the withholding of soybeans from market for speculative purposes. The Order specifically provides that no processor shall purchase, accept delivery of, or use soybeans of the 1943 crop except under contract with the Commodity Credit Corporation or as otherwise authorized by C.C.C.

Order No. 6 prohibits any manufacturer or seed dealer from purchasing or accepting delivery of soybeans of the 1943 crop in a quantity greater than his manufacturing or sales requirements for the period ending Oct. 10, 1944. Officials stated that it is essential that the entire 1943 crop be utilized before that date; that if some persons accumulate supplies to carry them beyond that date, other users of soybeans may be forced to shut down in the meantime, and less oil, meal, and other soybean products will become available for use during the 1943-44 marketing year.

As a means of preventing the purchase and holding of soybeans for speculative purposes, Order No. 6 prohibits any country shipper from having on hand at any time after March 31, 1944, a quantity of soybeans in excess of that which he has contracted to sell to processors, manufacturers, seed dealers, or C.C.C., plus the quantity of soybeans purchased by him during the immediate preceding 30 days or 2,000 bus. of soybeans, whichever is the greater. It also prohibits other persons from acquiring soybeans in excess of the quantity required to fill orders from processors, manufacturers, seed dealers or C.C.C., or to meet planting requirements.

To prevent wastage of oil through the use of whole soybeans for fertilizer or feed, Order No. 6 prohibits any person from purchasing or accepting delivery of soybeans in whole or ground form for use as, or manufacture into, feed or fertilizer.

Under C.C.C. Order No. 7, applicable to cottonseed, inventories of cotton ginner, and other recognized handlers of cottonseed are limited to the quantity which such persons have contracted

to sell to processors, manufacturers or seed dealers, plus the greater of the quantity of seed purchased during the immediately preceding 30 days or 30 tons.

Southern Dairymen Do Not Like Hay Subsidy

L. F. Friend, sec'y-manager of the Mid-South Milk Producers Ass'n, after a meeting at Memphis, Tenn., of the executive board, said the milk producers may toss the proposed hay subsidy plan of the Commodity Credit Corporation back into the C.C.C.'s lap with some recommendations that will make it workable.

Under the proposed hay subsidy program, the C.C.C. would permit producers to purchase \$40 alfalfa at \$25 a ton and \$25 clover hay at \$20 a ton. The difference would be paid by the C.C.C.

"Our directors are not pleased with the proposal," Mr. Friend said. "It is purely a drought measure and the contract offered by the C.C.C. runs only to April, 1944. We need the hay—but the C.C.C. program isn't practical."

Mr. Friend said the program would penalize producers who have been able to grow some of their hay and that the hay would have to be shipped into Memphis from as far as Kansas.

—P. R. P.

Heavy Lend-Lease Exports of Food

The War Food Administration reports the delivery of 1,250,000,000 pounds of food and other agricultural commodities to shipside for export to allied fighting fronts during July, the largest for any month.

Deliveries for shipment of agricultural products during July and since Jan. 1 have been as follows, in pounds:

	July, 1943	Jan. 1 to July 31, '43
Flour, wheat	94,077,649	426,064,827
Flour, rye	6,128,520	10,607,620
Wheat	12,099,700	30,653,320
Oats	259,900	426,200
Corn	13,357,120	116,724,160
Barley	9,294,877	9,384,477
Barley, pearl	801,670	6,173,610
Biscuits (hard bread)	3,512,448	12,594,400
Concentrated cereals	420,000	2,738,904
Corn grits	2,536,660	4,985,300
Cracked wheat	7,704,300	24,132,170
Macaroni	12,467	91,673
Malt	301,400	331,914
Noodles	12,800	12,800
Oats cereal	2,397,070	22,903,147
Rice, milled	28,707,760	139,717,451
Semolina	9,727,005	38,899,572
Agricultural seeds	332,536	34,440,354
Soybean products	23,384,480	112,112,372
Total	191,531,346	846,621,545

Food Conference Condemns Bureaucratic Bungling

The National Food Conference of Consumers and Producers was held at the Hotel Sherman, Chicago, Ill., Sept. 16 and 17.

Able speakers pictured the various food fronts. Hon. Hugh A. Butler, U. S. Senator from Nebraska, told of the food situation in South America; J. E. Johnson, pres. of the American Soybean Ass'n, outlined the problems of the soybean industry, while the national food situation was covered by Hon. Lee O'Daniel, former miller, and now U. S. Senator from Texas.

Senator Butler had just returned from a 20,000-mile journey by air thru Latin-American Republics. He said a small group has exportable grain surpluses, Argentina, Costa Rica, El Salvador, and the Dominican Republic. The remaining majority are without sufficient foods for their own needs.

Paraguay is almost the poorest country in the world, yet has ample land for food production, needing only development.

In virtually every Latin-American country the productive energies of the people are devoted towards expansion of some product that can be sold abroad for cash, while the production of foods to meet the vital needs of the people is neglected. We ought to be selling them efficiency instead of socialism, Mr. Butler said.

Resolutions adopted assert:

"A serious food situation confronts us because of bungling, complicated and unworkable regulations by bureaucrats and misunderstandings between producers and nonproducing consumers.

"Consumers must recognize that any attempts to hold down consumer prices which discourage production are bound to encourage black markets and must ultimately lead to dangerous shortages and perhaps actual famine.

"To get adequate production of food, producer and processor must be put on an equality with the manufacturer of munitions of war and to that end agriculture must be declared an essential war industry.

"We resent the attempt of the administration spokesmen and bureaucrats to brand as unpatriotic American farmers and members of congress who support them.

"In order to insure an adequate production of food for the successful prosecution of the war and properly to feed our civilian population, we urge that congress enact such legislation as will accomplish the following objectives:

"1. Fair prices at the market place instead of the present system of subsidies which tends to place food production and distribution under bureaucratic control.

"2. That no roll-back of prices be financed out of government funds and no subsidies either direct or by subterfuge be paid.

"3. Obtain maximum production as the best means to halt inflation, protect consumers and militate against the further growth of black markets."

The Feed Jobbers Committee of the Grain & Feed Dealers National Ass'n.



Portraits above are of members of a subcommittee of the Feed Jobbers Committee of the Grain Dealers National Ass'n which last week presented to Washington officials of the Office of Price Administration, some facts con-

cerning the needed margins for feed jobbers. Left to right: John Pepin, L. B. Lovitt Co., Memphis, Tenn.; Emory Cocke, Aschcraft-Wilkinson Co., Atlanta, Ga., acted as chairman of the subcommittee; Vernon Green,

Green-Mish Co., Washington, D. C.; A. L. Stanchfield, A. L. Stanchfield Co., Minneapolis, Minn.; A. S. Macdonald, Macdonald Commission Co., Boston, Mass.; Louis Tobian, Louis Tobian Co., Dallas, Tex.—Photos reproduced herewith are by the National Ass'n.

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Permit to Buy Soybeans?

Grain & Feed Journals: We have read in the Journal the explanation of the soybean loan and purchase plan for the coming crop, and are wondering if we must have a permit to buy from growers for our own account for seed stock and also for shipping to market.—Hofler Seed Co., Nora Springs, Ia.

Ans.: Dealers handling soybeans are in the same position as dealers handling wheat. It is their privilege to buy soybeans from anyone at any price and sell to anyone at any price. No permit is needed.

As long as the government maintains its ceiling on the price of soybean oil meal the price of the beans will be held down automatically thru inability of crushers to pay more.

The regulations governing the purchase of soybeans from growers apply only to those dealers who have signed the government's elevator agreement and are buying for the account of the Commodity Credit Corporation.

Since then the War Food Administration has issued an order described as C. C. C. order No. 6 which does limit the power of buyers of soybeans, as described elsewhere.

No country shipper can have on hand after Mar. 31, 1944, more soybeans than he has contracted to sell, plus beans bought by him during the preceding 30 days.

Computing Costs of Mixed Feeds

Grain & Feed Journals: In figuring feed formulas we use one hundred pounds of each ingredient in the mixture and then from it determine our cost of the raw material going into the product. If the cost of oats is 75 cents per bu. and wheat, corn and barley are at other prices per 100 lbs., it is an involved problem to determine the exact cost of the ingredients in the mixture. It is easy to know how much per bu. we pay for each ingredient used but to figure out the cost of each ingredient per 100 lbs. is quite a different matter, but we must know the cost per 100 lbs. for each ingredient and determine what our sales price shall be in order to cover our cost. A table for converting ingredient cost into total cost of mixture thereof would be a real help to all feed mixers.—Tindle Milling Co., Springfield, Mo.

Preparing for Position as Superintendent

Grain & Feed Journals: I would like very much to know what books I could read and thereby help to prepare myself for a position as superintendent of a terminal elevator. I appreciate that the general school of hard knocks in the grain trade would be most beneficial, but it may be that you may know of just what I need. Any suggestions you can give me will be greatly appreciated. ERL.

Ans.:—Managing a country elevator is a splendid education for any man aspiring to a position as superintendent of a terminal elevator. Paying cash for grain stimulates the buyers interest in the physical characteristics of quality. We would recommend that you avail yourself of every opportunity to attend a grain grading school, but, in the meantime, get copies of the rules governing grading of grain and study them carefully. After several years experience managing country elevators, we would suggest that you get a position as an assistant superintendent of a small terminal elevator. A place where you can observe every move of the superintendent and help him in every way possible. Such an experience should equip you with a knowledge of grain handling that would prepare you for the superintendent's job.

The monthly compilations of prices in Kansas show that wheat averaged \$1.27 a bu in the state on Aug. 15, compared with \$1.26 a month ago and 96c a year ago.

Heavy Sales of Feed Wheat

On the resumption of sales of feed wheat by the Commodity Credit Corporation Sept. 20 it is said sales were in excess of 1,000,000 bus. daily.

Feeders have first call and feed manufacturers have difficulty in getting a supply, some having stopped taking new orders for ground wheat.

The C.C.C. has qualified acceptance of orders from grinders with an understanding that they might be cut to meet ability of the C.C.C. to fill prior orders.

New Corn Ceiling Plan

The War Food Administration is reported to have drafted a new plan of controlling the price of corn, involving a county base instead of a terminal market base, to avoid the present conflict at state boundaries.

Chester Bowles, general manager of the O. P. A., told a press conference the agency would draft a new corn price regulation based on \$1.10 a bus. for No. 2 yellow corn at Chicago. This will replace the current control at \$1.07, but will apply only to the new crop, probably effective as of Oct. 1.

It is possible the W. F. A. may order growers to set aside 15 per cent of their crop for processors, as the obvious failure of the present plan was in the deprivation of supplies for the processors.

The War Food Administration announced formally Sept. 18 that marketing quotas will not be proclaimed for the 1943 corn crop. Such quotas may be proclaimed under certain conditions specified in the Agricultural Adjustment Act of 1938. It has been determined that such conditions do not exist this year.

CCC Wheat Loans

Commodity Credit Corporation through Aug. 31, 1943, had completed 49,197 loans on 44,355,725 bus. of 1943 wheat in the amount of \$56,964,137.49. The average amount advanced was \$1.28 per bus., which includes some transportation charges from the area of production to warehouse locations. On the same date last year 179,901 loans had been completed on 94,418,045 bus. Loans by States follow:

Origin of Loans	Farm Stored (bus)	Warehouse Stored (bus)	Amount Advanced
Ark. ....	.....	3,463	\$ 4,147.53
Calif.	17,801	167,419	237,611.36
Colo.	5,116	1,088,950	1,368,159.19
Del. ....	.....	46,175	67,248.05
Idaho ....	.....	69,417	78,407.84
Ill.	2,485	65,290	89,575.86
Ind. ....	.....	30,452	40,657.75
Iowa ....	.....	37,175	48,199.19
Kan.	2,343,615	14,654,920	22,076,768.82
Ky. ....	.....	36,114	49,474.48
Md.	207	334,888	486,335.88
Mich.	332	1,683	2,627.50
Minn. ....	.....	299,818	387,056.80
Mo.	442	82,206	107,598.92
Mont. ....	.....	194,711	223,305.67
Nebr.	1,847,262	2,982,280	6,139,094.63
New Mex.	11,324	373,624	591,406.19
N. Car.	651	.....	932.81
N. Dak. ....	.....	93,225	1,185,126.93
Ohio ....	.....	46,951	52,835.83
Okla.	242,068	6,182,741	8,054,134.36
Ore.	49,682	167,549	263,451.63
Penn. ....	.....	35,299	50,648.31
S. Dak.	30,171	502,625	671,467.76
Tenn. ....	.....	70,623	98,047.56
Texas	434,167	10,532,542	14,070,141.84
Utah ....	.....	5,864	6,331.68
Va.	136	27,069	39,630.83
Wash. ....	.....	78,203	90,584.50
Wyo. ....	.....	302,990	373,077.68
Totals	4,985,459	39,370,266	\$56,964,137.49

Coming Conventions

Trade conventions are always worth while as they afford live, progressive grain dealers a chance to meet other merchants from the same line of business under favorable conditions. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Sept. 26-27. The Grain & Feed Dealers National Ass'n officers and secretaries of Affiliated Ass'n will hold its annual meeting in the Statler Hotel, St. Louis. Any member may attend and join in the discussions and elections.

Sept. 24. Probable date of annual meeting of Pennsylvania Millers & Feed Dealers Ass'n, Harrisburg, Pa.

Sept. 27. New York State Seed Ass'n, Hotel Rochester, Rochester, N. Y.

Sept. 29. Ohio Grain, Mill & Feed Dealers Ass'n, Masonic Temple, Sidney, O., 6:30 p. m.

Oct. 8, 9. Western Seedsmen's Ass'n, Presidential Hotel, Kansas City, Mo.

Oct. 14. Western Grain & Feed Ass'n and Iowa Feed Institute, Hotel Fort Des Moines, Des Moines, Ia.

Nov. 17, 18. Texas Seedsmen's Ass'n, Texas Hotel, Ft. Worth, Tex.

Nov. 29. Western Grain & Feed Ass'n, Des Moines, Ia.

For any agricultural commodity for which base period average prices are available, parity is the base period price multiplied by the index figure for a given month. (The index figure, the average price, and the national parity price are made up by USDA as of the 15th of each month, and issued the last of each month.

Charles L. Douglass Passes On

Charles L. Douglass, aged 77 years, prominent in grain circles for many years, died Sept. 3 at his home in Cedar Rapids, Ia. Funeral services were conducted at the home Sept. 4 followed by further services and burial at Marseilles, Ill.

Charles L. Douglass was born near Marseilles, Ill., Apr. 25, 1866. For many years he was engaged in the grain business at Marseilles, later moving to Cedar Rapids, where from 1907 to 1941 he was vice-president and district representative of E. W. Bailey & Co., grain commission merchants of Chicago.



C. L. Douglass, Cedar Rapids, Ia., Deceased

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reform or improvements. Dealers having anything to say of interest to members of the grain trade are urged to send it to the Journals for publication.]

A New Product from Flaxseed

Grain & Feed Journals: It is with a great deal of pleasure that we are able to announce a new product to be known as Linogel. This new oil is the result of intensive research which was conducted in our laboratory over a period of more than a year.

Linogel is manufactured by an entirely new and unique method of refining never before known to the linseed oil industry; consequently, the results obtained are entirely different from anything that has been possible to accomplish with the use of linseed oil in the past.

The fast drying and non-penetrating properties of Linogel make possible a greater production of finished paints from limited quantities of oil, as well as definite new advantages and economies in your permanent production schedules.

Linogel (priority free) will be of immediate interest to every manufacturer engaged in the production of protective finishes or printing inks. —Archer-Daniels-Midland Co.

Protest Paying Premiums on Soybeans

Grain & Feed Journals: SOYBEAN DISCOUNT AND PREMIUM SCHEDULE. While the C.C.C. through its release on the Loan and Purchase Program on 1943 crop soybeans has indicated the schedule of premiums and discounts, yet an effort has been made to obtain some changes. C.C.C. and the processors will discuss their contract. These rates are involved in their contract. We have protested to C.C.C. against paying premiums on soybeans having less than 14% moisture down to 11%. It just isn't practical with the country elevators. Experience proves definitely that you can't mix various grades, or dry and moist grain or beans, together and not suffer a loss. Particularly is this true in the small and limited number of bins in Indiana elevators. If you are not properly equipped to thoroughly grade and take moisture tests, you are surely going to lose plenty of money right from the start.—Fred'k Sale, sec'y, Indiana Grain & Feed Ass'n.

Rye a Safe Hedge

Grain & Feed Journals: With the government Sept. 1 forecasting a crop of rye only half as large as last year some shippers may be persuaded to take off their hedges against rye in store to avoid being caught in a squeeze.

Of course a rye crop of only 38,314,000 bus., compared with 57,431,000 bus. in 1942 seems bullish on the face of it; but there is plenty of rye on hand to fill contracts for future delivery.

On July 1 we had 19,063,000 bus. on the farm and 23,307,000 bus. in commercial stocks, a total of 42,372,000 bus., compared with 30,063,000 a year ago. An open interest in the Chicago rye futures of 37,817,000 bus. on Sept. 10, against stocks of 23,307,000 held commercially might be taken to indicate the possibility of a squeeze; but in the September future which must be bought in soon the open interest was only 1,139,000 bus. Sept. 10, and is being reduced daily by deliveries and holders selling out and hedgers transferring to the December future, which is a profitable operation, as the December is worth 2 or 3 cents more per bushel than the September. Even the May future is selling two cents over the December, indicating that the rye futures market is a safe one for hedgers.—J. M. Norton.

Opposition to subsidies to roll back the prices of food products was expressed to the President Sept. 15 by the National Grange, American Farm Bureau Federation and the National Council of Farm Co-operatives, while demanding government supported "floor" prices for farm commodities at levels high enough "to assure abundant production and stabilized prices" and federal price ceilings adjusted to assure a maximum production and to avoid subsidies.

Cheap Storage for Bulk Grain

The production of large crops of grain and the accumulation of the carry-over stocks has so congested the storage space of the standard elevators that every elevator operator has strained his eyes looking about for cheap supplementary storage, which can be wrecked without much loss after the annual over-production has ceased, and the elevators are no longer overloaded.

One of the new developments is found at Minco, Okla., where Fred Albers has raised two concrete umbrellas to cover a circular space 54 ft. in diameter and 16 ft. high to cover a large quantity of bulk grain.

These two storage units being constructed of concrete are supposed to be fire and wind resistant, altho the piling of grain doors up against the side of the structure may cause considerable damage if fire is communicated from the adjacent dry weeds.

The domes are free from any supporting structure that will interfere with the spouting of grain into them or the removal of grain by underground screw conveyors.

The walls being constructed of reinforced concrete with heavy concrete floor will not require painting and provision was made to insure every joint being waterproof so as to prevent the grain being wet when wind drives rain against walls.

Unless an inside retaining wall reduces the lateral stress on the side walls of the structure the pressure of the stored grain is likely to force the walls out. The unknown angle of repose of wheat stored in bulk is very likely to result in the grain being forced to the outer edges of each structure. While a retaining wall built in a circle just inside the outer wall might reduce the lateral stress sufficiently to reduce the strain on the outside walls. The storage of flaxseed would be expected to jeopardize the outside walls and cause a spreading at the joints that would likely result in leaks.

This experiment will be watched with deep interest by those seeking cheap storage.



Fred Albers Bulk Storage Units at Minco, Okla.

Courtesy Our Paper.

Washington News

Farmers' stock eating peanuts of this crop has been exempted from price control in all sales by the C.C.C., the Office of Price Administration announced Sept. 7, preparatory to the purchase of the entire 1943 peanut crop by the Commodity Credit Corporation.

Omaha, Neb.—A temporary wharf cost-involving about \$2,500 in contrast to the multi-million dollar terminal envisioned when promotion of a dock project began several years ago, is under construction at the Omaha Municipal Dock site to serve Missouri River barges.

The National War Labor Board Sept. 7 announced its rules, under the War Labor Disputes Act, for the conduct of hearings before panels, the Board itself, or any of its authorized agencies. The rules set forth procedure for public hearings and on requests of the parties to a case for issuance of Board subpoenas.

The Flaxseed Ceiling has been amended effective Sept. 20 in Sec. 3 as follows: Applicability. This regulation applies to all sales and deliveries within the forty-eight states of the United States and the District of Columbia of domestic and imported flaxseed except for medicinal and industrial purposes other than processing for oil extraction and flaxseed for planting and food.

Forms CMPL-127 and CMPL-224 are being generally used as substitutes for orders in the P-19 series, the War Production Board pointed out. Deliveries of materials or equipment may be made on ratings assigned on these forms, if such deliveries are permitted under WPB orders pursuant to preference ratings assigned on a P-19-h order or any other order in the P-19 series. Prior to July 1, applications on Form PD-200 were approved by the issuance of a P-19-h order or some order in the P-19 series, which assigned a preference rating to the materials required. Recently forms CMPL-127 and CMPL-224 have been prepared and put into use as substitutes for P-19-h orders. These forms not only assign a rating to the certain materials required, but serve also as instruments for allotment of controlled materials required.

It has often been said that the O.P.A. is overburdened with lawyers and legalistic thinking. In my opinion, this criticism has been largely due to the position of the lawyers in O.P.A. as a separate administrative group. Sound legal advice and counsel is essential to the successful operation of the O.P.A. Men in administrative positions throughout the organization will rely, as in the past, on their legal staff for the development of sound regulations. But under the new order, final and complete responsibility for operating procedures and policies will be in the hand of the administrators. Those members of the legal staff who have formerly worked on price problems will become members of the Price Department. They will be subject to the Administrative authority of the Deputy Administrator for Price, who will be finally responsible for regulations which are clearly understandable as well as legally sound.—Chester Bowles, general manager O.P.A.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Winchester, Ind., Sept. 18.—Corn is coming along in fine shape, believe 90% of it is out of the way of frost.—Goodrich Bros. Co.

Chicago, Ill., Sept. 17.—Kansas corn was severely damaged by the high temperatures and high winds—crop only about 35% of normal and from all indications, there will be little for shipment.—C. B. & Q. R. Co., Crop Report.

Higginsville, Mo., Sept. 16.—Wheat acreage in Missouri will be the smallest we have had for many years. The farmers can make more money out of feed crops, oats, corn, barley or soybeans. If frost spares our crops for another three or four weeks, a lot of late corn will make a good yield.—A. H. Meinershagen, sec'y.

Evansville, Ind.—September rains over the pocket area have been heavy and it is believed they will be the means of saving the corn crop in some sections. Corn was badly injured by the intense drouth and some fields, it is estimated, will hardly be worth gathering. The drouth is said to have also badly damaged the soybean crop.—W. B. C.

Langham, Neb., Sept. 20.—The wheat yield was only about 40% of an average here this year. Owing to the prolonged drouth it is impossible to prepare the seedbed for fall sowing, and unless rains come soon, we doubt if there will be over 50% of the average sown to wheat this year. Corn also is a short crop, probably 60% of an average yield.—M. A. Osborn.

Lafayette, Ind.—On the basis of Sept. 1 conditions, Indiana's corn crop this year will be 97 per cent of last year's crop, or a total of 209,136,000 bus., the Purdue University Agricultural Statistics Department has announced. The 1943 crop, beset at planting time with adverse weather which many feared would drastically reduce it, thus promises to be 30 per cent greater than the 1932-41 average.—W. B. C.

Chicago, Ill., Sept. 15.—Half of Iowa's 44,000 acres in hemp are along the Rock Island. Present prospects are for heavy production of this new crop. All of Kansas, except the southwestern corner, is short of both surface and subsoil moisture despite some recent local rains. Plowing for wheat planting has been delayed over most of the state, awaiting rains to loosen the soil.—The Chicago, Rock Island & Pacific Rwy. Co. Crop Report.

Topeka, Kan., Sept. 10.—Kansas corn production is estimated at 68,355,000 bus., a decline of 9,765,000 bus. from Aug. 1 and compared with 19,683,000 bus. the 10-year (1932-41) average. Yield per harvested acre is placed at 21.0 bus. compared with 28.5 bus. in 1942. The production of all sorghums, for grain, is estimated at 18,914,000 bus. compared with 13,124,000 bus. produced in 1942.—H. L. Collins, Sr. Agricultural Statistician.

Oklahoma City, Okla., Sept. 10.—On the basis of Sept. 1 condition, the corn crop is now indicated at 21,186,000 bus. compared with 35,631,000 in 1942 and 29,501,000 bushels the 10-year (1932-41) average. The production of sorghums for grain is indicated at 8,472,000 bus. compared with 11,120,000 indicated a month ago and 10,614,000 in 1942. Peanut prospects declined. The indicated production is 185,500,000 lbs., a decline of about 18 per cent in prospects since Aug. 1.—K. D. Blood, Agricultural Statistician.

Helena, Mont., Sept. 7.—The grain harvest has been practically completed in the southeastern quarter of the state and is from 50 to 75% completed in most other sections. Most of the flax has been harvested in southeastern sections and will reach its peak in one or two weeks in the more northern districts. Yields of grain and flax continue good, in many instances turning out better than expected just before harvest. Grasshoppers are doing considerable damage to flax fields in several local areas and are attacking alfalfa hay and seed crops in some instances. Sawfly damage is increasing in Daniels and Sheridan counties in spring wheat fields, and some damage is also reported from Valley county. The bean harvest has been delayed by rains.—Jay G. Diamond, B.A.E., U. S. Dept. of Agri.

Ottawa, Ont.—Wheat production in Canada was placed at 296,259,000 bus. in the first estimate of the crop made by the Dominion Bureau of Statistics. This is only 50% of the 1942 harvest as indicated by the third estimate of last year's crop, and is the smallest wheat crop produced in Canada since 1937. The three Prairie Provinces account for 279,000,000 bus. of the total wheat crop estimated for 1943 and in both Manitoba and Saskatchewan the yield per acre exceeds the long-time average of 16 and 15 bus. respectively, while in Alberta the yield is just under the long-time average of 18.

Springfield, Ill., Sept. 11.—Corn made fair to good progress over most of the state. Subnormal temperatures slowed growth somewhat, at a time when rapid progress is needed to advance the crop past danger of frost injury. Considerable corn was denting, many stalks with one or two medium to good-sized ears. Soybeans are mostly good in the north compared with fairly good to good in the south, with a few areas reported poor; many were not podding well and some were being cut for hay; more warm weather is needed generally for maturing of the bean crop; drought damage is severe in areas.—C. L. Ray, statistician.

Toronto, Ont., Sept. 1.—Yields of all grains are reported to be far below normal and quality extremely poor, altho satisfactory yields are being obtained in a few scattered sections, particularly from early seedings. Good progress has been made in the preparation of land for fall wheat, and for the most part, soil worked up very well. Acreage increases up to 100% are reported from some sections, altho some farmers will not seed normal acreage, due to scarcity of good quality seed. Preliminary estimate of the production of barley and oats in 1943 in Ontario, with comparative figures for 1942 shown in parentheses, expressed in bushels are 6,417,000 (12,179,000); oats, 34,677,000 (84,538,600).—N. C. Engelter, Acting Director, The Ontario Department of Agri.

Pendleton, Ore.—Ninety percent of Umatilla County's huge wheat crop (it is estimated to be between 6,500,000 to 7,000,000 bus.) has been harvested a survey has revealed. Nearly as large a percentage of a bumper crop of dry edible peas and the Austrian winter pea crop also has been harvested. Dry edible peas showed an excellent yield but the Austrians were slightly less in acreage production than last year. Several pea processing plants are busy over the county and the Pendleton Grain Growers ass'n doubled plant here is processing an average of 150,000 lbs. of seed daily. The survey also showed that while railroad cars are still difficult to get, all wheat will be stored and none will be dumped in the open. In connection with the dry edible pea harvest a few growers in the mountain sections reported a "blue mold." This disease is in its first appearance here.—F. K. H.

Springfield, Ill., Sept. 14.—Corn and soybeans were the only crops showing improvement during the past month. Illinois corn yield outlook on Sept. 1 was 49.5 bus. per acre, 5 bus. below the record crop of 1942. Present State estimate of 49.5 bus. is an increase of 4.5 bus. over a month ago. Improvement in the crop is shown in all areas of the state except the southeastern quarter where drouth conditions cut prospects drastically. Considerable chaffy corn will result in that area. Indicated state corn production is 433,026,000 bus. The 1942 crop was 433,438,000 bus. Soybean conditions are similar to corn, with improvement shown the past month in all sections except the southeastern quarter. Acreage to be harvested for beans is estimated at 3,560,000, slightly less than the estimated record of 3,514,000 acres harvested in 1942. Prospective production of 75,250,000 bus. marks the third consecutive year in which production exceeds all previous records. The 1932-41 average production of 26,644,000 bus. and the 1937-41 average is 38,228,000 bus. Indicated yield per acre is 21.5 bus., exceeded only in 1938 and 1939. Oats production, 113,632,000 bus., against 1942 crop of 141,320,000 bus. Sept. 1 prospects with 1942 production in parentheses are: winter wheat, 17,170,000 bus. (12,623,000); spring wheat, 160,000 bus. (195,000); broomcorn, 2,200 tons (2,900). The 1943 yields per acre for Illinois with 1942 and 10-year (1932-41) average yields in parentheses follow: Corn 49.5 bus. (54.5) (39.2); winter wheat, 17.0 bus. (13.0) (18.1); oats, 33.5 bus. (40.0) (32.8); spring wheat, 20.0 bus. (19.5) (16.2); soybeans for beans, 21.5 bus. (21.0) (19.5); barley, 23.0 (22.5) (25.6); and broomcorn, 490 lbs. (335) (502).—A. J. Surratt, Sr. Agricultural Statistician, Ill. and Federal Departments of Agriculture.

Decatur, Ill., Sept. 18.—The corn crop is maturing rapidly and if killing frost holds off for a few more weeks, most of the crop will be made. Thru this central area much of the crop is now past the frost damage stage, altho northern areas need warm weather with drying winds to hasten maturity. With continued favorable weather, many sections of the state will raise as good a crop as last year, but the average yield per acre for the state as a whole will fall below the record crop of 1942. In the southeastern quarter, drouth conditions cut prospects drastically, and there will be considerable chaffy corn in that area. Otherwise, if nothing happens from here on out, the quality of corn in the balance of the state will be excellent. Illinois production last year on 7,953,000 acres was 433,438,000 bus.; this year's estimate on 8,748,000 acres is 433,026,000 bus.—Baldwin Elevator Co.

Canadian Estimated Flaxseed Yield

The Canadian government crop estimate of flaxseed in the Western provinces, recently issued, indicates a yield for Manitoba of 2,800,000 bus.; Saskatchewan, 12,000,000 bus.; Alberta, 2,600,000 bus., making a total yield for the provinces of 17,400,000 bus. An estimated yield of 6.3 bus. per acre compares with 10 bus. per acre last year.

Government Crop Report

Washington, D. C.—The U. S. Dept. of Agriculture reports:

CORN: A bumper corn crop of 2,985,267,000 bus. is in prospect on Sept. 1, a gain of 111 million bushels over the Aug. 1 forecast. While the outlook is for a smaller crop than the record of 3,175,154,000 bus. produced in 1942, it would be, nevertheless, the second largest crop produced since 1920 and the fourth largest corn crop ever produced in the U. S. A crop of this size would exceed the 10-year (1932-41) average of 2,349,267,000 bus. by 636 million bus., or 27 per cent. The average, however, includes the two drought years, 1934 and 1936, when production was only 1,448,920,000 bus. and 1,505,689,000 bus., respectively. The indicated yield on Sept. 1 is 31.7 bus., compared with 35.5 bus. in 1942, the record yield—and 24.9 bus., the 10-year (1932-41) average.

Altho corn production is larger than indicated a month ago, fairly marked change in prospects occurred in the different sections of the country. Further deterioration of the crop continued during the month in areas which began to show the effects of high temperatures and inadequate rainfall in July.

SOYBEANS: The prospective production of soybeans is 208,763,000 bus., compared with 209,559,000 bus. in 1942, estimated last December, and production of 105,587,000 bus. in 1941. The acreage of soybeans for beans is placed at 11,480,000 acres, an increase of 7 per cent over the 1942 estimate of 10,762,000 acres and nearly double the 5,881,000 acres harvested in 1941. The indicated yield per acre is 18.2 bus., compared with 19.5 bus. in 1942 and the 10-year average of 16.7 bus.

The rather uneven conditions that prevailed on Aug. 1 due to water damage on lowlands and the larger than usual late planted acreage has been further increased by varying drought extending from the Middle Atlantic westward to the Central Great Plains States and southward to Mississippi and Texas. Prospects have not changed materially in the major producing states since Aug. 1. Moderately lower prospects in North Carolina and Iowa have been offset by improvement in Ohio, Illinois, and Missouri.

BUCKWHEAT: Prospects improved during August, and Sept. 1 conditions indicate a 1943 crop of 8,472,000 bus.—178,000 bus. above Aug. 1 indications. This production is 27 per cent more than the 1942 production of 6,687,000 bus., and 21 per cent above the 10-year (1932-41) average production of 7,029,000 bus. The 1943 acreage of 493,000 acres for harvest is 30 per cent above the 378,000 acres harvested in 1942 and 16 per cent above the 10-year (1932-41) average.

FLAXSEED: The 1943 flaxseed production is expected to be by far the largest on record. The indicated production on Sept. 1 of 54,720,000 is 35 per cent larger than the previous record crop of 40,660,000 bus. harvested last year and about 3½ times the 10-year (1932-41) average of 14,226,000 bus. The production estimated on Sept. 1 is less than 1 per cent above the Aug. 1 indication.

Malt Stocks on hand next Jan. 1 will be 2,000,000 bus. less than on Jan. 1, 1943, altho production has exceeded estimates by 1,500,000 bus.

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Spokane, Wash.—Receipts of grain during August as compared with August, 1942, shown in parentheses, expressed in bushels were as follows: Wheat, 2,167,500 (2,623,500); corn, 13,500 (25,500); oats, 168,000 (108,000); barley, 630,400 (559,500); flaxseed, 4,500 (1,500).—John W. Campbell, sec'y, Spokane Merchants Ass'n.

New York, N. Y.—Receipts and shipments of grain during August as compared with August, 1942, shown in parentheses, expressed in bushels, were as follows: Receipts, wheat, 1,015,192 (4,800); corn, 26,816 (5,779); oats, 39,500 (34,000); rye, 1,600 (2,925); barley, 4,166; soybeans, 195,380; flaxseed 234,399 (140,000) shipments, wheat, 711,000 (112,000).—Dept. of Inf. & Statistics, Produce Exchange.

Portland, Ore.—Receipts of grain during August compared with August, 1942, shown in parentheses, expressed in bushels were as follows: wheat, 769,767 (1,366,654); corn, 11,601 (80,837); oats, 186,687 (134,416); rye, 2,625 (4,510); barley, 280,601 (160,293); kafir, 2,875; milo, 3,031; gr. sorghum, 4,574; flaxseed, 34,892 (11,772); hay (tons), 777 (404).—C. W. Wright, Chief Grain Inspector, Oregon Dept. of Agri.

Ottawa, Ont., Sept. 9.—The following quantities of wheat and coarse grain were received from the farms in western Canada the week ending Sept. 2, expressed in bushels, comparative figures for the like period a year ago shown in parentheses: Wheat, 4,710,860 (3,637,462); oats, 3,333,558 (908,549); barley, 2,246,479 (2,994,617); rye, 52,802 (500,343); flaxseed, 327,909 (46,209).—S. A. Cudmore, M.A., Dominion Statistician.

Philadelphia, Pa.—Receipts and shipments of grain during August as compared with August, 1942, shown in parentheses, expressed in bushels were as follows: Receipts, wheat, 1,093,881 (325,220); corn, 3,049 (4,571); oats, 7,046 (2,498); rye, 10,459; barley, 1,815; shipments, wheat, 1,127,020 (94,536); corn, 8,093 (124,828); oats, 11,975 (5,747); rye, 586 (1,996); barley, 1,292 (4,423).—John W. Frazier, managing director, Commercial Exchange.

Port William, Ont.—Receipts and shipments of grain during August, compared with August, 1942, shown in parentheses, expressed in bushels were as follows: Receipts, wheat, 17,262,640 (11,952,160); oats, 10,663,400 (1,127,636); rye, 772,497 (151,476); barley, 8,185,306 (867,782); flaxseed, 257,154 (159,471); mixed grain, 61,520 (27,532); shipments, wheat, 21,932,389 (10,049,770); oats, 6,729,788 (1,195,068); rye, 29,240 (66,120); barley, 5,436,135 (731,526); flaxseed, 929,983 (242,928); mixed grain, 58,616 (13,173).—E. A. Ursell, M.A., statistician, Board of Grain Commissioners for Canada.

Duluth, Minn., Sept. 19.—The car shortage is holding back new crop movement with daily receipts posted reaching no large volume. Practically no rye is coming to this market, very little oats, a fair amount of barley and moderate run of wheat. The latter is in good demand from mills and shippers, barley is meeting ready sale, principally of the feeding type at top prices and oats as well is holding at new highs. Feeding grains are in steady demand and undertone decidedly strong. The CCC continues to support the cash wheat market, taking most of the daily receipts.—F. G. C.

Duluth, Minn.—Heavy imports of Canadian grain the past several months by lake for re-shipping by rail to sections of the U. S. by the government to relieve the feed shortage has caused complaint that it has interfered with movement of our large domestic crop to terminals. Last week one day there were eight Canadian cargoes to arrive, and from one to several daily otherwise. Congressman Pittenger of Duluth wired Pres. Roosevelt to stop the movement because the imports were placed in direct competition with domestic grain and because western box cars were thus diverted to the east and far south instead of hauling U. S. crops to market. If reports are correct, and they are well authenticated, the movement of Canadian grain by lake will be stopped, to this terminal.—F. G. C.

St. Paul, Minn., Sept. 9.—The final season's report of Northern Pacific Railroad says: This year's wheat crop will be more completely shipped out and at an earlier date than any crop in recent years. Ordinarily the major share of the oats and much of the barley are held for livestock feed. That is not true this year. The controlling factor at present is boxcars. The situation is acute. Many elevators are plugged but relief is in sight. If grain boxes do become available in increasing numbers a much heavier grain movement will take place earlier this fall than has occurred for several years past. If farmers are compelled to provide temporary storage due to inability to ship direct from the threshing machine, it is likely the movement to market will stretch out into the winter.

C.C.C. Grain Loan Maturities

WHEAT, warehouse stored, Apr. 30, 1943; farm stored, Apr. 30, 1944.

CORN, all stored on farm, on demand, on 3-year period; but may be delivered on 30 days' notice by farmer.

BARLEY, on demand, but not later than Apr. 30, 1944.

GRAIN SORGHUMS, on demand, but not later than June 30, 1944.

Duluth Board of Trade Fixes Commission

At a meeting of the Board of Directors of the Duluth Board of Trade held Sept. 14, the following resolution was adopted:

WHEREAS the Office of Price Administration has established ceiling prices on flaxseed and has provided that at interior points a charge of three (3) cents per bushel shall be made as the handling charge at the terminal basing points.

RESOLVED: That the Board of Directors of the Duluth Board of Trade, acting under the power granted in Section 28 of Rule IV of the General Rules and By-Laws to require conformity by members of the association with any rule or regulation adopted by law of the United States, directs that in all cases where flaxseed is sold at the ceiling price, the commission charge shall be three (3) cents per bushel, this to continue as long as ceiling prices are maintained by the Office of Price Administration.—F. G. C.

Protein tests of 215 cars of wheat received at Kansas City during the week ended Sept. 17 averaged 13.43%, as tested by the Kansas Department, and on 236 cars averaged 12.81% as tested by the Missouri Department. The combined average was 13.11, against 12.78% a year ago.

The Dominion Bureau of Statistics reports that for the 8 months of the 1942-43 crop year—from August, 1942, to last April—136,943,288 bus. of Canadian wheat were exported. This compared with 116,366,801 bus. in the same 9 months of 1938-39, when sea lanes were wide open.

Parity and Farm Prices

PARITY

Date	Wheat	Corn	Oats	Rye	Bar-ley	Soy-beans
Jan. 15..	139.7	101.4	63	113.8	97.8	152
Feb. 15..	141.4	102.7	63.8	115.2	99	154
Mar. 15..	142.3	103.4	64.2	115.9	99.7	155
Apr. 15..	143.2	104.0	64.6	116.6	100.3	156
May 15..	144.1	104.6	65.0	117.4	100.9	156.0
June 15..	145.0	105.0	65.4	118.0	102.0	157.0
July 15..	146.0	106.0	65.8	119.0	102.1	158.0
Aug. 15..	146.0	106.0	65.8	119.0	102.0	158.0

FARM PRICES

Date	Wheat	Corn	Oats	Rye	Bar-ley	Soy-beans
Jan. 15..	117.5	88	52.5	61.3	63.3	159
Feb. 15..	119.5	90.4	55.5	64.1	70.7	160
Mar. 15..	122.7	94.8	58.4	68.9	74.8	165
Apr. 15..	122.3	100.2	61.1	69.5	77.3	167
May 15..	122.8	103.4	61.2	71.9	76.8	172.0
June 15..	124.0	106.0	64.8	79.7	83.9	173.0
July 15..	126.0	108.0	65.6	90.9	92.0	170.0
Aug. 15..	127.0	109.0	65.2	88.4	92.9	168.0

C.C.C. Loan Rates on Grain

BARLEY, on farms, No. 1, 75c; No. 2, 73c; No. 4, 67c per bushel. In California, Idaho, Oregon and Washington, 5c higher.

SORGHUMS, on farms, No. 2 or better, 85c; No. 3, 80c; No. 4, 70c. In Arizona and California, 5c higher.

FLAXSEED at Minneapolis \$2.85 for No. 1.

CORN, average 84c per bushel.

WHEAT, average \$1.23 per bushel on farm.

SOYBEANS, \$1.80 per bushel at the country elevator for No. 2 green and yellow of 1943 crop.

RYE, for No. 2 or better, 75c on farm, 68c in warehouse, no farm storage payment.

Wheat ground by flour mills during the 7 months ending July amounted to 296,267,901 bus., against 272,753,001 during the like period of 1942, as reported by the Bureau of the Census. Production of millfeed increased from 4,722,954,420 to 5,040,439,519 pounds.

Open Interest in Future Deliveries

As reported by the Compliance Branch of the Food Distribution Administration the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1000 bus.:

	Wheat	Corn	Oats	Rye
June 12	35,277	16,538	14,919	40,939
June 19	37,095	16,031	14,651	40,761
June 26	37,479	.....	15,674	39,357
July 3	38,532	.....	15,500	37,189
July 10	42,676	.....	15,222	36,338
July 17	48,400	.....	16,217	38,137
July 24	50,217	.....	17,361	38,919
July 31	50,890	.....	17,990	38,179
Aug. 7	52,428	.....	17,885	38,642
Aug. 14	53,419	.....	18,991	40,890
Aug. 21	53,420	.....	19,180	40,653
Aug. 28	52,516	.....	19,437	38,354
Sept. 4	49,089	.....	20,277	37,239
Sept. 11	50,064	.....	20,315	38,083
Sept. 18	51,009	.....	18,897	39,020

Daily Closing Prices

The daily closing prices for wheat, oats, rye, barley for December delivery at the following markets for the past two weeks have been as follows:

	Option	Sept. 8	Sept. 9	Sept. 10	Sept. 11	Sept. 12	Sept. 13	Sept. 14	Sept. 15	Sept. 16	Sept. 17	Sept. 18	Sept. 19	Sept. 20	Sept. 21
Chicago	High	153 3/4	142 1/2	147	147 1/4	147 1/4	147 1/4	148 1/4	147 1/4	148 1/4	148 1/4	148 1/4	148 1/4	148 1/4	148 1/4
Winnipeg*	Low	117 1/4	99 1/2	107 1/2	110	110 3/4	111 1/2	112 1/2	113 1/4	114	114 1/4	114 1/4	116 1/4	116 1/4	117 1/4
Minneapolis	High	145 1/4	136 1/2	139	139 3/4	140	139 3/4	140	140 1/4	140 3/4	140 3/4	140 3/4	140 3/4	140 3/4	140 3/4
Kansas City	Low	144	135 1/2	141 1/2	142 1/2	142 1/2	142 1/2	142 1/2	142 1/2	143 1/4	143 1/4	143 1/4	143 1/4	143 1/4	143 1/4
Duluth, durum	High	142 1/2	137 1/2	140 1/2	141	141 1/2	140 1/2	141 1/2	141	141 1/2	141 1/2	141 1/2	141	141	140 1/4
Milwaukee	Low	151 1/4	142 1/2	147	147 1/4	147 1/4	147 1/4	148 1/4	148	148 3/4	148 3/4	148 3/4	148 3/4	148 3/4	148 3/4
Chicago	Option	74 1/4	59 3/4	71	72	72 1/2	72 1/2	72 1/2	72 1/2	73 1/4	73 1/4	73 3/4	73 3/4	73 3/4	74
Minneapolis	High	108 3/4	62 1/2	66 1/2	67 3/4	67 3/4	68 1/2	68 3/4	69 3/4	70	70	69 3/4	69 1/2	69 1/2	69 1/2
Milwaukee	Low	74 1/4	60 1/4	71	72	72 1/2	72 1/2	72 1/2	72 1/2	73 1/4	74	73 3/4	73 3/4	73 1/2	74
Chicago	Option	114 3/4	86 1/4	104 1/4	105 1/4	105 1/4	105 3/4	105 3/4	105 3/4	107	107 1/4	107 1/4	107 1/4	106 3/4	106 3/4
Minneapolis	High	108 3/4	83 1/4	97 3/4	98 3/4	98 3/4	98 3/4	98 3/4	99 1/4	101	101 1/4	101 1/4	101 1/4	100 1/2	100 1/2
Winnipeg	Low	102 3/4	87 3/4	96 3/4	97 3/4	97 3/4	98 3/4	98 3/4	98 3/4	99 1/4	99 1/4	99 1/4	99 1/4	100 1/2	101 1/2
Minneapolis	Option	108	95	102 1/4	103 3/4	104 3/4	104 3/4	106 1/4	105 3/4	106 3/4	107 1/4	106 3/4	106 3/4	106 3/4	107 1/4

Utilization of Corn Cobs

In view of the fact that 17,000,000 tons of corn cobs are produced annually in the United States their utilization is being studied by the Research Laboratory at Peoria, Ill., which reports as follows:

Ground cobs, for some 20 years or more, have been marketed for the purpose of cleaning furs, for burnishing metals, for removing oil from tin and other types of metal plates, and for making sweeping compounds. For cleaning furs particularly, all of the fine dust must be removed from the ground cobs.

Ground cobs of about one-quarter to one-eighth inch in size make a very suitable fill in farm and other buildings for heat insulation because of their low thermal conductivity. They may be used as a loose fill over ceilings between the joists or in walls between the studding. However, they have the disadvantage of not being fireproof, and while they do not attract vermin, they are likely to be a good harbor for them because of the looseness of the fill.

Ground cobs have been used in making lightweight ceramics and tile. The procedure consists of incorporating in the clay particles of cobs which, on burning, leave empty air spaces.

Ground cobs seem to be suitable as a filler for plastics, except that the luster and waterproof qualities of the phenolic plastics made with cob flour do not seem to be as high as with wood flour. These requirements are not so important in certain plastics. In such cases the question of price would be the controlling factor for the replacement of wood flour by ground cobs.

Due to war conditions consideration has been given to ground cobs as a replacement for granulated cork. The cob particles are much harder and less resilient than cork, and where resiliency is required the ground-cob particles are not an equal substitute. However, their resistance to abrasion and wear would indicate suitability of use in materials such as composition shoe soles, stair treads, and the like. It has been reported that ground-cob flour of about 50-mesh size is suitable as a replacement for cork in linoleum manufacture. Another use for cobs, although rather small, is as a replacement for beech or other wood shavings as a bacterial-film-supporting medium to provide maximum oxidation conditions in the "quick process" for the manufacture of vinegar.

A notable special use of cobs is that of the manufacture of "Missouri Meerschaum" pipes for smoking, a business which is reported to have grossed upwards of a million dollars in 1940 from the manufacture and sale of 30,000,000 corn cob pipes. A special variety of corn, which produces large, compact and uniform cobs, supplies all the cobs used for this purpose.

Cobs may be used as an absorbent in the manufacture of dynamite. Pith-like particles, such as those from sugarcane or cornstalks, make a good absorptive material for nitroglycerin in the manufacture of low-density permissible dynamites. An apparent density of from 0.15 to 0.10 is required for such material, and the material must be free from sand and metal particles which would cause formation of a spark in compounding. The ordinary woody material of the cob is too dense to meet such specifications, but it is reported that by suitable extraction of the cob particles, the apparent density can be lowered to the specific limits indicated.

It is suggested that uses for ground cobs depending on the hard, tough, and abrasive properties of the particles can be increased.

COBS IN CHEMICAL INDUSTRY.—A great deal of research and development work has been carried on to produce chemicals or cellulose pulp from cobs. At the present time none of these developments are actually being practiced industrially, due in the main to economic conditions. Most of the processes attempted have depended upon the utilization of

only one constituent of the cob, as for example the cellulose, and have not been able to realize any monetary value from any of the other constituents. Monetary values should be realized from each of the three principal chemical constituents; namely, cellulose, lignin, and hemicelluloses.

Cob pulp could probably find some market uses, particularly in specialty papers or boards, as a byproduct from the processing of cobs for other purposes. In such cases any value it would have would contribute to the income from the main processing. A fairly white pulp can be produced by digesting coarsely ground cobs with 20 per cent caustic soda solution for two hours at 40 pounds steam pressure and washing the spent alkali from the pulp. In general, the yields of alpha-cellulose from agricultural residues are low as compared with wood as a source, and costs are high. Because of the very short cellulose fibers of the cob, methods of purification of alpha-cellulose pulp will be more difficult than with longer fibered pulps.

Work at the U. S. Agricultural Byproducts Laboratory, Ames, Ia., which became a part of the Northern Regional Research Laboratory in 1941, and work at the latter laboratory have shown that cobs, when cooked with dilute sulfuric acid or with aniline, are capable of yielding lignin concentrates which are quite satisfactory for the manufacture of lignin plastics and plastic molding powders. The Northern Regional Research Laboratory is continuing an intensive study of lignin plastics from agricultural residues. It is believed that lignin-plastics production will increase considerably in tonnage due to military requirements and the necessity of supplementing present phenolformaldehyde plastics production.

Lignin has also been found quite suitable for removing iron from potable waters, and cobs can serve as a source for such lignin.

An important industrial chemical is furfural, which may be used in phenolic plastics, replacing formaldehyde. It is used also in the purification of wood rosin and of petroleum lubricating oils, and in the manufacture of medicinals, disinfectants, and solvents. The industrial development of furfural is a result of the work of LaForge and Mains of this Bureau. These workers used cobs as their raw material, but when the process was commercialized oat hulls, which accumulated in large quantities at an oat-milling plant in Cedar Rapids, Ia., were used as the furfural source. The oat hulls contain somewhat less pentosans from which the furfural is derived, but cost less than cobs due to the advantage of being available in large quantities at a central point. Cobs, nevertheless, are a very satisfactory source for furfural manufacture, and may be used for this purpose if the supply of oat hulls is inadequate. The Northern Regional Research Laboratory is engaged in developing other industrial uses for furfural with the hope of enlarging production possibilities. LaForge and Hudson carried on extensive research work on the utilization of cobs. They were able to prepare a gum from cobs by two methods, the first, by treatment of the ground cob under steam pressure at about 140° C., and evaporating the extract to a sirupy consistency, and the second, by extracting the cob with 1 per cent sodium hydroxide solution and evaporating this extract similarly. These authorities recommend this gum for use as an adhesive in connection with paperboard and for other purposes, and report industrial tests which indicate its suitability for such purposes. No industrial application of either of the two methods here referred to appears to have resulted. Recently, however, a number of companies, looking for means of replacing imported adhesive gums, are investigating the gum obtained from cobs as a possible substitute for some of their requirements. The exact composition of this gum is un-

known, but it probably contains xylan and other complex carbohydrates; because it appears to have adhesive value, it is worthy of consideration in the industrial arts.

The hydrolysis of wood (a ligno-cellulose) into sugars has become of great industrial significance in Europe, especially due to war conditions, and is developing rapidly in South America. The process would be applicable to cobs with little change. Two basic types of process are employed. The Bergius process involves treatment of the material with concentrated hydrochloric acid at ordinary temperatures, while the Scholler process uses dilute acid at temperatures of 170° C., under pressure of about

[Concluded on page 240]

Promise Allied Nations Too Much Food

By J. E. JOHNSON, pres. American Soybean Ass'n, before National Food Conference.

We have experienced the constant attempt to convince the American public that we had ample food resources, when those who have the know how and who had the sincerest interest and welfare of the war effort and the national economy at heart, knew that this was not the situation as we now know, certainly a most embarrassing position for our United States, which is destined to feed the world.

Then, to further aggravate this serious situation, those elected to positions carrying heavy responsibility, and others who may have volunteered, have visited our allied nations with the promise of food that can never be produced.

In this connection may this suggestion be respectfully submitted—that this Conference go on record as disapproving this type of effort and that from this time some person or persons leave the food situation to such groups as are here assembled, working with other groups who have a sincerity of purpose and a determination to meet the challenge, one of the most serious ever attempted, and with but one objective—that of the mutual interest for the common good.

To be sure, we are very much interested in world affairs. However, we know that no Utopia can ever be created, as may have been suggested by well-meaning people. Foods are not produced by promises, but by performance.

The estimated total of U. S. soybean crop for 1943 at this time is 200,000,000 bus., with a fair outlook of harvesting the greatest part of the crop.

What does this mean to our national income in dollars and cents? In round numbers for the sale of the soybeans alone, \$350,000,000. Illinois, with an estimated state yield of 22 bus. per acre, would have a state crop of 77,000,000 bus., having a value of around \$150,000,000.

Then the matter of transportation is more acute. Many trucks that were serviceable in 1942 are no longer in use, and again, thanks to the creative ability of the American farmer, we must create and provide some method of moving the crop to market, that soybeans will be readily available for uses for which they are so well adapted.

Problem number two: In an effort to secure a high protein food our government requested that 1,750,000,000 pounds of soya flour be made from the 1942 crop for lend-lease and other purposes.

The latest objection comes from the Pure Food and Drug Administration who, in the face of this request for the vast tonnage of a high protein food by our government, have a decree whereby soya-flour can be used as a bleaching agent only, and if more than one-half of one per cent is added to the loaf by the baking industry, it cannot be called bread. This has come at a time when the diet of the nation is suffering from lack of protein. To be sure we have registered our objections. This type of procedure seems so ridiculous and apparently discriminating, it is reasonable to believe that this will be corrected by those responsible for such corrections, and without delay.

The Protein Crisis

By WALTER C. BERGER of the Feed Industry Council before American Soybean Ass'n

We just simply have too much livestock for the amount of feed supplies we have available for this coming season. In fact, it is estimated that we have only approximately 80 per cent enough total feed to feed the present livestock. In other words, we have approximately one-fifth more livestock units on hand than we have of feed. Therefore, we must get our heads together and plan a very sound feed conservation program for the coming season, along with a systematic reduction of certain types of livestock.

TWO TESTS that have been made by Iowa State College on a number of privately owned farms thruout the state show that the dairy cow produces 3.15 pounds of protein and 28,000 calories per 100 pounds of feed concentrate. The hen laying eggs produces 2.58 pounds of protein and 28,000 calories. The hog, 1.65 pounds of protein and 29,000 calories. Broilers and meat birds, 2.65 pounds of protein and 11,000 calories. Fat cattle on grass, 1.40 pounds of protein and 29,000 calories; and fat cattle on dry lot, .79 pounds of protein and 20,000 calories.

Iowa State College tests show that hogs require eight bushels of corn, 44 pounds of protein and 12 cents worth of grass for 100 pounds of gain, including feeding the breeding herd. Steers require 12.1 bushels of corn, 20 pounds of protein, 250 pounds of hay, 260 pounds of silage and 60 cents worth of pasture for 100 pounds of gain.

In making a study of this you see the dairy cow comes first, because she produces not only the maximum amount of protein and calories; but also essential minerals and vitamins in the form of milk and milk products. She is a great utilizer of roughage and has the ability to handle the poorer quality of protein.

The hen laying eggs comes next. She not only is a high producer of protein and calories but also produces essential minerals and vitamins.

The hog comes in high in the classification because he is by far the most efficient producer of calories from 100 pounds of concentrate feed.

The broilers and meat birds are next on the list. Last but not least, come the fat cattle and sheep. Please remember we want to produce all the beef we possibly can from the vast acreages of roughage and pasture lands that we have in this great nation. We want to produce all the lamb, mutton and wool that we can on the roughage and grass lands that we have.

However, when it comes to feeding an extra finish on fat cattle during this wartime shortage of feed and grain, we are going to have to satisfy our taste with a little more good red beef.

The point I want to make here without going into too much detail is that good, thro, sound and scientific research has been made on this problem and the recommendations that come out will be based on this sound information. There is not much politics connected with it.

HOGS farrowing for next year are to be cut back to about the same level of 1942, in other words, reducing back from 127 million hogs to approximately 104 or 105 million hogs. Poultry meat production will be about the same as this year. This will be done because of a heavier culling recommendation. Therefore, our chicken meat production will be heavier but they will cut back the production of broilers and meat birds from 10 to 20 per cent. It looks like there will have to be a cut back on the hatching for next year—somewhere between five and 10 per cent.

On beef cattle production, we would like to reduce the number of cattle between Jan. 1, 1944 and Jan. 1, 1945 approximately five per cent and increase the cattle slaughter during this period from 15 to 20 per cent, so that we will have a heavier kill of beef cattle during the year and decrease the number on the farm approximately five to six per cent. That will

mean more cattle in the feed lot, but not fed to a high finish. We will put less corn and proteins into these cattle than we have been doing in the past.

With this sort of schedule the United States Department of Agriculture is hoping that they might be able to get a proper distribution of all meals and feeds.

It is estimated that on Oct. 1, 1943 converted into oil meal protein equivalent, that we will have approximately 11,600,000 tons of protein supplies against Oct. 1, 1942 of 11,300,000 tons. This is your total high protein feed and does not include mill feed.

We will have approximately 300,000 more tons of total protein for the coming year with a much larger livestock population to feed than we had a year ago. Because of this the War Food Administration called a meeting of the feed industry at which they asked members of the Triple-A, War Boards from different sections of the United States, representatives of the linseed, soybean, cottonseed and peanut meal crushers, as well as all members of the Feed Industry Council to be present. There were approximately 65 of us who sat down to discuss this problem of equitable distribution of all these commodities. It was primarily an oil meal hearing to discuss the problems of production and distribution of the four oil meals.

The estimated production on soybean oil meal for the coming year is 3,150,000 tons plus approximately 700,000 tons of soybean flour.

Cottonseed meal approximately 2 million tons; linseed meal 1,150,000 tons and peanut oil meal 225,000 tons, making roughly a total tonnage of the four oil meals available for the coming year of 6,400,000 tons, which is not over 5 per cent larger than last year, with a much smaller carryover on practically all of them.

THE MAIN PROPOSALS by the W.F.A. to the group attending the conference in Washington included:

1. Eliminating the use of cottonseed meal and soybean oil meal as a fertilizer.
2. Limiting prices or sales to 60 days in advance.
3. Holding back 10 per cent of all soybean oil meal crushers' capacity for distribution in emergency areas which will be allocated by the different war boards.
4. A definite priority to the producers of feeds and beans so they would be assured of getting the oil meal they would need to feed out their own particular livestock.

The crushers and feed industry both objected to the priority system, and this proposal was tabled for the time being. I believe that under the allocation of meal to feeders there would develop one of the greatest black markets we have had. But if we do not do a good job of distribution, the priority system will still go into effect in some form. It is not discarded. It is merely being held off until a later date, to be brought out whenever the voluntary system breaks down. Soybean growers may refuse to sell beans without getting some form of preference on meal. If they do, priorities may be necessary. There have been a lot of inquiries coming to the colleges on how to feed straight beans. This indicates that if the producers feel there is a possibility that they cannot get oil meal for feed, that they will not sell beans but will feed them out. This must not be allowed to happen, for the country needs the oil from these beans.

I came back from Washington believing that Washington does not want a rationing program. I am confident that they don't want the job. They want you men here in the room to do it. This is a problem that we've got to solve ourselves or we'll have it solved for us.

IF SELFISH, personal and company gains are placed before the interests of the nation

we may find soybean processors being severely criticized by both the farmers and the small feed mixers. If feed companies are allowed to buy up processing facilities, and shut off supplies of oilseed meals, the resentment against them may increase greatly. If personal gain is allowed to overshadow the interests of the nation we will immediately have feed priorities.

The problem is yours, as an industry. What are you going to do with it?

THE FEED INDUSTRY has done a marvelous job under the voluntary protein program. This program is essential and must go on. It looked like an impossible job last January, but it worked. There are thousands upon thousands of pigs and poultry now in the feed lots that would not be there without this program. I hope that we will be given enough time to work out the new program on a voluntary basis and to show that we can make it work.

If we believe in a democracy and the capitalistic system let us forget personal selfishness, let us forget sectionalism, let us prove again we are democratic enough to make these adjustments voluntarily and keep from forcing forms of allocations and bureaucratic controls on ourselves.

Farmer Position on Wheat Ceiling

The position of the farmers on the wheat price control is well stated by Congressman Clifford R. Hope of Kansas as follows:

The War Food Administration has asked the wheat farmers of this country to plant 26% more wheat for the 1944 harvest than was planted for the harvest this year. This means an increase of about 14,000,000 acres. The greater part of this increased acreage must come from Kansas and other Great Plains states if the goal is to be met. Farmers are expected to plant and harvest this greatly increased acreage with less machinery and far less labor than have been available in normal times.

In addition to this, wheat farmers find themselves the victims of serious and wholly unwarranted price discrimination. The price of wheat today is 11% below parity. The price of agricultural products as a whole is 14% above parity, and wheat is the only important farm commodity which is selling at substantially less than parity at the present time.

The sole reason that wheat is selling at less than parity is the ceiling on flour prices. This ceiling has been imposed in direct violation of the Price Control Act which says that no price ceiling shall be imposed upon any agricultural commodity or any product manufactured therefrom which does not reflect parity to the producer.

The sole excuse given for the wholly illegal and arbitrary price ceiling on flour is that it is necessary in order to keep the price of bread at its present level. Just why the price of bread should be maintained at depression levels when practically every other item entering into the cost of living has advanced substantially during the war period is a question for which I have up to date found no satisfactory answer, although I have made diligent inquiry of those in charge of the determination of ceiling prices.

It would take an increase of 16c per bu. to bring wheat prices up to parity today. That would mean very little in the cost of a loaf of bread because 62 one-pound loaves of bread can be manufactured from a bu. of wheat. Thus, a 16c increase in wheat price would mean about one-fourth cent increase in the cost of a loaf of bread, assuming that all of the increase had to be passed on.

Even if we assume for the sake of argument that it might be necessary to increase the retail cost of bread as much as one-half cent per loaf, it would still be by far the cheapest food we have. It would be less than the price in 1926, when both wages and employment were far below what they are now.

Soybean Grade Standards and Interpretations

By G. H. IFTNER, Director of Grain Marketing of Illinois Agricultural Ass'n before American Soybean Ass'n.

The 1942 harvest presented unprecedented marketing conditions and for the first time in soybean history proved beyond doubt that existing grade standards were too severe in the factor covering damage, especially if damage was due to frost.

Present standards were predicated on the fact that damaged beans required additional costs to processors and refiners in the production of quality oil and meal and that they produce less oil and protein.

There was ample evidence to indicate that these costs were negligible, that is, about one-eighth of a cent per oil pound, or one cent per bushel. There was also evidence that frost damaged beans contained high proportions of both oil and protein.

Information obtained and experiences gained in the present harvesting and processing year proved beyond doubt that a complete revision of the damage factor in the present grade standards was in order, if the true value of the damaged beans is to be reflected in prices to producers.

The present standards permitted no end of confusion among all trade interests especially producers, local elevator managers and grain inspectors. The confusion led to abuses and sharp practices, resulting in serious economic losses to producers and local elevator handlers.

EXCESSIVE DISCOUNTS.—Early in October, a number of farm advisers reported to the College of Agriculture that farmers attempting to market frost damaged beans at nearby processing plants had been discounted severely, government inspectors following the current grade standards to the letter and processors taking the full discount allowed. In sample grade beans, the discounts were 2c for each one-half per cent of damage over eight per cent. A typical example: Early in the season a sample of immature, frozen beans carrying as low as eleven per cent moisture was offered for sale and the processor quoted a price reflecting a discount of \$1.20 a bushel. These beans carried 17.8 per cent of oil.

A Macoupin County farmer harvested and binned all of his bean crop before offering them for sale. He took one hundred bushels to a local elevator and was offered \$1.08 a bushel; a discount of 52c. Dissatisfied with this deal, he took a second load to another firm in the same general community and was paid \$1.58 a bushel. A sample of these beans was forwarded to the Chicago Board of Review and were graded as follows: Sample Grade Yellow, 10.4 per cent damage; 4.0 per cent splits; 0.5 per cent foreign material.

Discounts suffered by country elevators and reflected to producers in most cases were reported by 59 elevator managers in 30 soybean producing counties. These reports indicate that the average discount taken on all beans inspected in October, November and December, 1942, averaged around 5c a bushel.

A typical elevator that asked for federal grades on samples of beans received from each of 194 shippers had an average discount of 12.5 cents. Thus, the bean crop from that area brought only \$1.47½ per bushel.

39 per cent of the acreage of soybeans in the north half of Illinois remained unharvested during the winter months. The bulk of these beans did not move to market until the months of March and April. The severe winter caused further damage, discoloration, splits, and, in some cases, additional foreign material. It has been estimated that only about 50 per cent of the beans remaining in fields as of March 1st, 1943, were recovered. Thus, the producers harvested only about half a crop of beans.

The producers' losses were further augmented by unfair grading when the beans moved to the country elevator, largely because elevator opera-

tors were unable to grade the damage, splits and foreign material accurately. Producers lost thousands of dollars on the grading factors. The exact amount will never be known.

The following example is typical on just one sample of beans.

Farmer "A" harvested his beans on March 5th, 6th, and 8th. He took a large sample to elevator "X". The manager graded them 70 per cent damage and 60 per cent splits and offered \$1.20½ a bushel. Farmer "A" took the same sample to elevator "Y" where the manager graded them 78 per cent damage and 1 per cent dockage and offered \$1.20½ a bushel. The same beans were sent to a federal inspector who graded the beans only 50 per cent damage and no dockage. Thus, the beans were actually worth \$1.37 a bushel, or 16½c a bushel more than the farmer actually received.

GRADE RECOMMENDATIONS ADOPTED.—Those who worked at this problem were encouraged when they learned that Washington officials gave serious study to the facts presented. Their efforts bore larger fruit when on July 27, at Chicago, Commodity Credit officials named a small committee consisting of J. C. Hackelman, University of Illinois (Chairman); George Strayer, sec., American Soybean Ass'n; D. J. Bunnell, Central Soya Co.; Elmer Mossman, Illinois A.A.A. Committeeman; and E. B. Evans, Evans Elevator Co., to draw up recommendations on grades to be applied to the 1943 bean harvest. The recommendations were adopted without a dissenting vote and were as follows:

Green Damage: 8.1% to 15%—1 cent discount; 15.1% to 20%—1 cent additional; 20.1% to 25%—1 cent additional; 25.1% to 30%—1 cent additional; and 1 cent additional discount for each 5% damage above 30%.

Field Damage: ½c discount for each 1% damage from 8% to 25%; 1c discount for each 1% damage from 25% to 60% and 1½c discount for each 1% damage above 60%. These recommendations are contained in the new soybean buying plan recently announced.

The adoption of these improvements in the soybean grade standards and interpretations of them is a step in the right direction. While it came too late to relieve producers and handlers of the 1942 crop it is a measure of relief as we view the 1943 harvest with a prospect of late maturity due to the late planting season. Producers will benefit by the changes and elevator men will have a more sound basis on which to buy and sell. Further improvements will need to be made in the light of experience gained in the marketing of beans under these standards.

Utilization of Corn Cobs

[Continued from page 238]

120 pounds. In these processes the cellulose is converted to a fermentable sugar (dextrose) which can serve as a raw material for the production of ethyl alcohol, yeast, and other chemicals such as butylene-glycol. Pentosans yield a nonfermentable sugar which has some use as a stock feed, generally used in crude form with the accompanying dextrose. The lignin remains as a residue which might find application in plastics manufacture, when not seriously disintegrated. Katzen and Othmer have recently described a continuous process for hydrolysis of wood which could use cobs or other agricultural residues as a raw material. Whether such hydrolytic processes will be successful in this country depends on future developments.

The price squeeze confronting corn millers was discussed at the meeting of the executive committee of the American Corn Millers' Federation in Chicago last week. A decision was reached to ask O.P.A. to grant temporary relief. It is expected that a revision of the corn ceilings, as well as of the maximums on corn goods, will be made on the new crop. Following the meeting, James Mullen of General Foods Corp. and Harry H. Hunter of the Federation left for Washington.

Soybean Price Supporting and Processing Program

By J. H. LLOYD, Assistant Regional Director, Chicago Office, Commodity Credit Corporation, at American Soybean Ass'n War Conference.

It is contemplated that the bulk of the 1943 soybean crop will be handled through regular trade channels, which means primarily thru country elevators direct to processors or thru country elevators and commission houses to processors, and secondarily thru direct sales of producers to processors.

In many respects the 1943 soybean price supporting, processing and products distribution program of Commodity Credit Corporation will be similar to the 1942 Crop Program. The 1943 program, however, differs in that:

The basic soybean support prices are 20 cents per bushel higher—\$1.80 for No. 2 or better soybeans of Classes I and II, with low-moisture premiums of 2 cents per bushel for each full 1 per cent Moisture below 14 per cent; and \$1.60 for No. 2 or better soybeans of Classes III, IV & V, with the same low-moisture premiums to apply. Similar low-moisture premiums will also apply to all other grades of soybeans of all classes.

In lieu of discounts, basic support prices for soybeans of Grades 3 & 4 are established at prices 2 cents per bushel and 5 cents per bushel, respectively, below the Grade 2 prices for the various classes.

All sample grade soybeans will be eligible for purchase on basis of an established schedule of discounts.

The 1943 discount schedule has been modified from the 1942 Schedule, especially as regards the discount for so-called "green bean" damage, and the 1943 crop official inspection certificates will record two damage counts—"field" damage and "green bean" damage.

Foreign material in excess of 5 per cent will be handled the same as dockage. In other words, it will be a weight factor instead of a discount factor.

No "high oil" or "low oil" areas are provided for in the 1943 program, thus establishing the same support price thruout the country for soybeans of like moisture content of a given class and grade.

Up to date, there is no provision for a monthly advance in the support prices for soybeans.

The Office of Price Administration has not, up to the present time, established a ceiling price for soybeans of the 1943 crop.

Under the 1943 program, country elevators may handle soybeans for Commodity Credit Corporation only under the provisions of the Uniform Grain Storage Agreement.

Country elevator "in and out" handling charges are increased to 5 cents per bushel.

The carryover from the 1942 or earlier crops will not be eligible for 1943 soybean support prices.

The substantially higher oilseed meal prices already established under the Office of Price Administration's ceiling price orders of Aug. 1, 1943, which prices are in line with the provisions of previously offered and contemplated Commodity Credit Corporation 1943 oilseed processor contracts, should materially aid in solving the protein supplement feed shortage that lies ahead.

Elevator Company Not Liable for Overtime

The Farmers Elevator Co. of Barnesville, Minn., defendant, won a decision by Judge Nordbye of the federal court, against Oscar Holt and Wm. Dahl, who had petitioned for overtime pay under the Wage and Hour Law.

The court held that the elevator company did not come under the act as it employed fewer than seven persons.

Why Soybeans Are Discounted

By LAMAR KISHLAR, Chairman Soybean Nutritional Research Council before American Soybean Ass'n.

The modern oil chemist has a whole bag of tricks for decolorizing dark oils and for removing unpleasant odors and flavors. But these modern refining methods are relatively costly, require special handling of the oil and reduce the manufacturing capacity. The excessive treatment which many dark oils require, removes some of nature's protective substances from the oil so that the resulting product may have a poorer keeping quality. In too many cases, the most modern methods of refining and the greatest skill of the chemist fail to remove all of the odor and color and the resulting refined oil must be diverted into a product of lower quality than intended.

Only prime beans can be used in soyflour and other soyfoods. Even in feeds for livestock and poultry, the feeding results can be no better than the beans from which the oil meal is made. Low quality beans are a loss to the grower, crusher, and refiner alike.

In general, there are three types of damaged soybeans. The first is due to an early frost or excessive drouth just at the time the beans are maturing. Either of these causes arrests the normal development of the bean and the chlorophyll, the green pigment which normally returns from the bean to the roots as the soybean ripens, remains in the seed. The soyoil made from these frost damaged or drought arrested seeds is bright green in color and causes great trouble and expense to the refiner.

This type of damage is not caused by nature alone. Have we not overlooked in our search for high yielding varieties that time of maturity is also an important factor? Can we not in the Northern areas select or develop varieties which have a shorter maturing time so that we have a greater factor of safety? Should we not give greater recognition to this problem and by more careful planning avoid much trouble in future years?

DELAYED HARVEST.—The second common problem is caused by hard, early freezes coupled with the shortage of men, which prevents a normal harvest and results in many beans remaining in the field for part or all of the winter. This causes a different kind of impairment to both the oil and the oil meal. The oil from winter damaged beans has a fixed red color which requires all of the ingenuity of the oil chemist to remove. In most cases, the color resists all attempts to remove it. The value of the meal from these water-soaked wintered beans is also seriously impaired.

Sand and grit are associated with these winter damaged beans. The winter rains beat sand into the beans so that it resists the normal seed cleaning methods of the elevator and oil mill. About three-quarters of all beans are crushed in expellers in which the beans are compressed in slotted steel cylinders under pressure of many tons per square inch. Under these tremendous pressures, it takes only a trace of sand or grit to quickly grind out the presses so that in some cases repairs are necessary in 30 to 60 days, where formerly a year's operation on prime beans was possible.

IMPROPER STORAGE.—The third type of damage is caused by improper storage, either on the farm, in the country elevator, or in the crushers storage bins. Beans which have a high moisture content will heat when stored in a tightly closed bin. Some crushers artificially dry their wet beans before storing them. Others keep turning them from one bin to another to keep them cool and to help them to dry out naturally. Either method costs money for labor and moisture loss. If the beans become hot, the oil and meal is injured in a very similar way to the winter damaged beans.

It is almost impossible to evaluate mathematically the money losses which occur due to

damaged beans injured by the wide variation of conditions. It should be kept in mind, however, that damaged beans cause four different kinds of losses.

First, there is the discount which must be paid to the refiner because of the inferior quality of the oil. This discount includes a refund for higher than normal refining loss, a refund for excessive green color in the crude oil, or a refund for excessive red color in the refined and bleached oil. Second, there is a loss because of lower oil yield, after allowance for greater meal yield as compared with sound beans. Third, there is a lower feeding value in the oil meal. Fourth, there are higher crushing costs which include increased repairs, greater power consumption, increased labor cost, reduced plant capacity and greater milling loss.

Terminal Soybean Purchase Contract

The Commodity Credit Corporation, by J. H. Lloyd, assistant regional director, Chicago, Ill., on Sept. 10 offered terminal and sub-terminal elevator operators a contract under which they can make effective the government's plan of supporting the price of soybeans of the 1943 crop.

The terminal warehouseman will receive a commission of 1.5c per bushel for purchasing, to cover commissions, insuring and temporary financing, plus 5c per bushel for country elevator in and out charges, subject to the provisions of the uniform grain storage agreement.

The warehouseman agrees to confine his purchases to those harvested and shipped from areas specified by the C.C.C. Sections 6 and 7 read as follows:

Sec. 6. Commodity offers to purchase at any time before Sept. 30, 1944, from elevator any or all eligible soybeans purchased by elevator under this contract of any class or grade. Commodity shall pay elevator for soybeans purchased as follows:

Subject to adjustment for premiums and discounts as specified in Sec. 3 hereof at the time of loading out, the basic support price of (1) \$1.80 per bushel for soybeans of Classes I and II, or (2) \$1.60 per bushel for soybeans of Classes III, IV and V; plus 5 cents per bushel for country elevator in and out charges; plus 1.5 cents per bushel for purchasing (including any commissions paid), temporary financing, insuring, and assembling in storage.

The provisions of the Uniform Grain Storage Agreement and amendments thereto, including the unloading storage, conditioning and insurance charges shall, beginning on the date of purchase by Commodity, apply to all soybeans purchased by Commodity from Elevator which remain in elevator for storage after purchase by Commodity. Commodity shall pay or cause to be paid, the in-charge, the out-inspection, and out-loading charges with respect to all soybeans purchased by it, except that Commodity shall not pay the terminal unloading or loading out charges pertaining to soybeans purchased by warehouseman in the capacity of a country warehouseman. Payment shall be made under this section upon submission by Elevator of a statement of the amount due, supported by such other documents as may be required by Commodity.

Sec. 7. On any and all beans sold Commodity Credit Corporation the inbound freight charges, plus freight tax, shall be paid by the elevators to railroads; said elevators shall be reimbursed for such charges promptly by Commodity Credit Corporation at time the sale is made. Freight bills and transit tonnage slips shall be held for Commodity in accordance with the terms of the Uniform Grain Storage Agreement.

The price of alcohol distilled from grain has been raised one-half cent a gallon by the O.P.A., as the distillers were falling short in production and earnings. They are operating at only 50 per cent of capacity.

SCALE TICKETS FOR GRAIN BUYERS

Scale and Credit Tickets—Form 51 Duplicating contains 100 leaves of white bond paper, each leaf bearing five tickets, machine perforated for easy removal, and 100 leaves of yellow post office paper, each leaf bearing five duplicates which remain in the book. Also 4 sheets of No. 1 carbon. Size of book 5½x13½ inches, check bound, well printed. Each leaf is one ticket wide and five tickets deep. Order 51 Duplicating 500 tickets. Price, \$1.25, plus postage. Weight, 1½ lbs.

Crop Delivery Record (Duplicating)—This multiple load scale ticket form has two tickets to a page so that grain from two farmers may be recorded without turning a leaf. Each ticket is ruled to record receipt of 23 loads including the date, hauler's name of each load, gross, tare and net, and has spaces at the bottom for recording the total bushels, the price, the check number, and the total amount paid in settlement. Especially convenient when a farmer sells his entire crop at one time, delivering all of it within a few days. Originals (120) of attractive goldenrod bond paper, 120 duplicates of manila, and 3 sheets of No. 1 carbon paper to the book, with heavy gray pressboard covers, cut flush. Spiral wire bound so that open book lays flat, or may be folded back upon itself in open position to facilitate entries. Size, 8½x10½ inches. Shipping weight, 2 lbs. Price, \$1.25 each, plus postage. Order Crop Delivery Record, Form 69 Spiral.

Improved Grain Tickets—Using Form 19GT as a scale book saves much time and labor as one writing with the use of carbon will give you a complete record and a ticket for the hauler. Each of the 125 original leaves bears four scale tickets, printed on white bond, machine perforated. Each ticket is 3 inches wide by 6½ long. The 125 duplicate leaves are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Each book is 7½x13 inches, supplied with 5 sheets of No. 1 carbon. Duplicating. Weight, 2½ lbs. Price, \$1.25 each, plus postage. Order 19GT Dup. Price, \$1.35, plus postage.

Scale Ticket Copying Book—Contains 150 leaves bearing 600 originals and 600 duplicates, four originals and four duplicates printed on each leaf and perforated so outer half of each leaf may be folded back on the duplicate, thus giving an exact copy of all entries on the original. Leaves of white bond are machine perforated between tickets so they may be easily removed without tearing. Duplicate remains attached to original until all entries are completed. Check bound, size 9½x11 inches, and supplied with 6 sheets of No. 1 carbon. Order Form 73. Weight, 2½ lbs. Price, \$1.45, plus postage.

Duplicating Scale Ticket Book—A labor-saving scale ticket book in which the buyer keeps a carbon copy of the entries made on every scale ticket issued, so altered or spurious tickets may be readily detected. This book contains 100 leaves of white bond paper, machine perforated, bearing 800 tickets, inter-leaved with 100 blank manila sheets. Well printed and bound in heavy board covers. Supplied with 4 sheets of No. 1 carbon paper, size 8½x11 inches. Order Form 62. Price, \$1.55, plus postage. Weight 3 lbs.

Duplicating Wagon Load Receiving Book—This book is designed to facilitate the work of country buyers during the busy season when each farmer is delivering a number of loads daily. Each leaf bears two tickets and is perforated down the middle so that when the sheet is folded back on itself, and a sheet of carbon inserted, an exact duplicate will be made of each entry on the other side of the sheet. Each leaf has room for name of farmer and the haulers of 34 loads in duplicate. Outer half may be torn out and given to the farmer or sent to headquarters of line company. The book is 12 x 12 inches, check bound with heavy boards, contains 225 leaves ruled both sides, and nine sheets of No. 1 carbon. Order Form 66. Weight, 4 lbs. Price \$2.85, plus postage.

Cash with order for twelve copies of any of the above books earns 10% discount.

GRAIN & FEED JOURNALS CONSOLIDATED

327 So. La Salle St., Chicago

Power and Power Transmission—4

By C. M. PARK, Chief Engineer, Mill Mutual Fire Prevention Bureau
From Discussion at the Meeting of Indiana Hay and Grain Dealers Ass'n.

[Continued from Grain & Feed Journals for September 8, page 196]

LIMITATIONS OF DRIVES—Where a drive is required to change shaft speed as well as to transmit power, and where the ratio of speeds does not exceed 4 or 5 to 1, either a flat belt or V-belt drive will give excellent results providing the belt can be operated at a high enough speed, and providing the smaller pulley or sheave is not too small for the belt used. A V-belt drive cannot be recommended for drives where the belt speed will be less than 2,000 feet per minute or more than 5,000 feet per minute, and the most satisfactory belt speeds for this type of drive will be in the range between 3,000 and 4,000 feet per minute. This means that for an 1,800 RPM motor, the pitch diameter of the motor sheave should be between 6.5" and 8.7" for best results, and the diameter should never be more than 11.0" nor less than 4.4" in any case. In no case, of course, should the pitch diameter be less than the minimum specified by the manufacturer for the size of belt used. For a 1,200 RPM motor, the best range of pitch diameters for the motor sheave will be between 9.8" and 13.2", and should never be greater than 16.5" nor less than 6.6".

Flat belts may be used with reasonable success for belt speeds between 1,500 and 6,000 feet per minute, but pulley diameters should never be smaller than recommended by the manufacturer for the type of belt used. For short center drives and for drives having a high ratio of speeds, flat belts can be used successfully only when means for automatic maintenance of belt tension is provided. The most satisfactory means for automatic belt tension adjustment is the hinged or pivoted motor base with which the weight of the motor is utilized to maintain belt tension. Even with such an arrangement, it is necessary that the tight side of the belt be on the same side of the motor shaft as the rocking or pivoting center of the base. With such an arrangement, the torque reaction of the motor frame tends to increase belt tension as the load increases. If, however, the tight side of the belt is on the opposite side of the motor shaft from the rocking or pivoting center of the base, the torque reaction will tend to reduce belt tension as the load increases, and the motor will be likely to flutter or vibrate on its pivot.

Where the belt speed for a V-belt would be less than 2,000 feet per minute, or less than 1,500 feet per minute for a flat belt, or where the ratio of speeds exceeds 5 or 6 to 1, a chain or gear drive should be used. For use in the presence of grain dust, the totally enclosed self-contained type of gear reduction unit is most satisfactory.

SPEED-UP DRIVES—It is sometimes necessary to drive a machine at a speed higher than that of any available motor. With such drives, the starting load imposed by the inertia or fly-wheel characteristics of the driven machine are multiplied by the ratio of the drive, and when load is suddenly increased at full speed, the fly-wheel effect of the large motor sheave is added to the motor torque in imposing load on the drive. As a consequence, such drives must be designed with more than normal capacity if they are to give reasonable satisfaction.

If the speed-up characteristic is combined with high speed of the driven machine, and if the drive is to be capable of utilizing the full output of the motor to avoid choke-downs while running, the job of designing a satisfactory drive is certainly not one for a novice. Take, for example, a hammer mill to be driven at 3,500 RPM by a 50 HP, 1,750 RPM motor.

If V-belts are to be used for such a drive, the diameter of the driven sheave on the hammer mill cannot be less than 5.4 inches or the

belt speed will be too high. Since 5.4 inches is the minimum diameter that may be used with a B section belt, that will be the largest size belt that can be used. Assuming a motor sheave with a pitch diameter of 10.8 inches and a distance of 24 inches between centers, the net rating per belt will be 3.7 HP. For such a drive, the service factor will have to be at least 2.5 if the full motor torque is to be available to pull the mill through momentary overloads and if the danger of burning up the drive in case of a choke-down is to be avoided. Multiplying the horsepower of the motor by the service factor indicates that the rated capacity of the drive should be not less than 125 HP, and dividing this amount by the net rating per belt indicates that 34 strands of B section belt would be required for a satisfactory drive. Such a drive would necessitate the use of outboard bearings on both the motor shaft and the hammer mill shaft, and would be entirely impracticable.

The only remaining possibility for such a drive would be a flat belt in which the belt could be operated at a speed of 6000 feet per minute. A long center drive at that belt speed would take up considerable space and would have other undesirable features, and it would be best to consider a short center drive with a pivoted motor base.

At 6000 feet per minute, the pulley diameter required to produce 3500 RPM at the hammer mill will be 6.5", and the motor pulley will, therefore, have a diameter of 13". For a pulley of this diameter, a light double ply leather belt could be used, but it would have to be a special grade of high speed belting. Under such conditions, the rated capacity for the belt would be about 8.25 HP per inch of width. With this type of drive, a service factor of 2.2 will have to be used, and the total horsepower to be transmitted will be 110. Dividing this by 8.25 indicates that the belt in this case will have to be 13 inches wide which will be slightly over the maximum specification for a standard squirrel cage motor of this rating and speed.

It is probable that such a drive would give satisfactory service even though it would slightly exceed the design limitations specified by the motor manufacturers and the leather belt manufacturers, but the motor base would have to be properly installed and properly adjusted to develop the required amount of tension to stall the driving motor in case of a choke-down in the mill. In any case, a drive of this type would be within the range of practicability, and would probably be the best that could be used where a speed-up drive of this type is required.

PRECAUTIONS.—There is no question but that many drives now in use are improperly designed and are inadequate or unsuited for the service to which they are subjected. Such drives are incapable of performing satisfactorily, and are very likely to break down, and perhaps start a fire, at a time when a breakdown would be most inconvenient, and when a fire might put the operator out of business.

Every operator of a grain or milling plant can very properly and profitably check over all of his drives to find out if they are properly designed and are being maintained in proper operating conditions. For checking the design of V-belt drives, plant operators will find some useful information in Engineering Service Department Bulletin No. VB-200 published by the Mill Mutual Fire Prevention Bureau. Copies may be obtained without cost from any Mill Mutual office or representative, or by writing to the Bureau at 400 West Madison Street, Chicago, Ill.

To guard against the possibility of incorrect

or inadequate power transmitting equipment when new machinery is being installed or when changes in the plant are being made, it is suggested that your Mill Mutual office or representative be consulted. Competent engineering service is available without cost to operators of grain and milling plants, and may be the means of avoiding breakdowns and fires and of saving substantial amounts of money in installation and operating costs.

[The End.]

From Abroad

Some French peasants are burning their bread grain crops rather than give them to the Vichy government with the certainty that much of it will go to Germany. Peasants are burning many wheat stacks and even threshing machines.

India's wheat crop is officially estimated at an all-time record of 408,352,000 bus., compared with 375,947,000 in 1942. The 1943 crop appears to be sufficient for the country's requirements, but a more equal distribution of supplies will be necessary if shortages in some districts and the need for imports are to be avoided.

Mexican farmers who plant oil-producing plants instead of corn will be penalized, according to Rodolfo T. Loaiza, governor of the state of Sinaloa. The high prices offered in the United States for castor, peanut and other oils had caused planters to abandon corn plantings in favor of oil crops. Fines up to \$200 will be imposed on farmers who reduce corn plantings.—P. J. P.

Italy is normally a large exporter of rice. The crop, however, probably will be sufficient to meet domestic requirements at existing rationing levels. The Italian rice crop is grown mainly in the northern districts almost exclusively in the Po Valley. Should the Nazi forces make a stand in that area the customary distribution of the new crop within the country would prove to be impossible.—U. S. D. A.

Portugal's wheat crop has been drastically curtailed. Instead of 300,000 metric tons—as at first estimated—it is now believed that total production in continental Portugal will not exceed 225,000 tons and may be as low as 190,000 tons. Portugal is faced with a serious shortage of wheat, rye, corn, and potatoes, as crops of these staple foods are among the lowest of the past 10 years. The drought which commenced in April affected crops throughout Portugal.

The Italian wheat crop this year is believed to have been fully as large or even larger than the pre-war average, according to the Department of Agriculture's Office of Foreign Agricultural Relations. Based on weather and crop reports which indicated generally good yields, and on reports of increased acreage compared with last year, the 1943 crop may have amounted to as much as 280,000,000 bus. That estimate compares with unofficial estimates of 268,000,000 bus. from 13,000,000 acres last year and with the average of 267,000,000 bus. from 12,517,000 acres for the 5-year period 1933-1937.

A Hog Ceiling of \$14.75 per cwt., Chicago, will go into effect Oct. 4, about 50c under the current market. For next year the support price is reduced from \$13.75 to \$12.50. The ceiling will afford some relief to packers who have been squeezed by the ceiling on hog product. Also it may have the effect of easing the demand for corn.

Dawson, Ia.—Ed Grettenberg of the Grettenberg Grain Co., one of the largest buyers of corn from the farmer, has been indicted by the federal grand jury on the charge of violating the corn ceiling price regulations of the O.P.A. The government alleges that Mr. Grettenberg sold corn to Missouri truckers at 5 to 11c per bushel over the maximum.

Using Emergency Rations

By DR. L. C. NORRIS, Cornell University before Northeastern Poultry Producers Council

The war has caused striking changes in poultry rations. These changes involve chiefly the use of new or unfamiliar feedstuffs as a consequence of short supplies of those to which most poultrymen are accustomed. There have also been marked changes in the quantities of some of the customary feedstuffs included in poultry rations. Up to the present time these changes have not caused any observable reduction in the nutritional adequacy of poultry rations.

The use of new feedstuffs in poultry rations, or greatly changed amounts of old ones, is always a cause of anxiety to poultrymen because of the fear that changes in formula may be accompanied by a reduction in quality and result in poorer livability, growth, egg production and hatchability. Their use, in spite of this, is quite readily accepted at the present time because of the realization that it is a consequence of emergencies—that is, shortages of feedstuffs—arising from the war.

Present-day poultry rations, therefore, are frequently called "emergency rations," a term which implies that, when the war is ended and the feedstuff shortages no longer exist, a return will be made to the customary formulas of pre-war days. It is exceedingly doubtful, however, that we shall return all the way because some of the changes which have been made have resulted in improvements of permanent value.

CRUSHED WHEAT SUPERIOR.—At Cornell university we have observed during the past year, for example, that the inclusion of crushed wheat in poultry rations promotes better results than are obtained by the use of wheat by-products. In rations for chicks the replacement of wheat by-products with crushed wheat has promoted significantly better early growth. In rations for hens this change has increased egg production and resulted in better maintenance of weight throughout the laying year.

THE RESULTS which have been obtained with emergency rations during the first half of 1943 are in general equal to those obtained in the same period of 1942. Chick growth appears to have been good during the past spring and pullets seem to be developing at a satisfactory rate this summer. There appears, furthermore, to be no evidence of any increased mortality either in chicks or growing pullets.

In the case of egg production and hatchability it is possible by turning to U. S. D. A. reports to get more concrete evidence of satisfactory performance. This shows that the average egg production in the northeastern states for the first six months of 1943 was 95.4 eggs per hen. Last year during the same period of time the average egg production per hen was 95.7 eggs. The rate of lay during the first six months of both of these years was considerably superior to that of the five-year average, 1937-41. During the first six months of 1943 the hatchability of all eggs set was 69.0, while that in the same period for 1942 was 69.8 per cent. These results are also better than those obtained during the years 1937-41.

THE FEEDSTUFFS of which there is a reduced supply as well as an increased need are milk products (dried skimmilk, buttermilk and dried whey), animal protein supplements (fish meal and meat scrap), steamed bone meal and, recently, yellow corn. In addition, shortages of dehydrated alfalfa meal and fish oil vitamin A have developed largely because of increased demand.

In the case of milk products, the shortage has been largely overcome by use of products obtained by fermentation. Fermentation products supply in general the same nutritional essentials—riboflavin and certain other water-soluble vitamins—previously obtained chiefly from milk products. The important fermentation products

are dried brewers' yeast, dried distillers' solubles, products resulting from the production of butyl alcohol, and a product produced by the fermentation of whey. These products are satisfactory replacements for milk products because they contain riboflavin and other water soluble vitamins of importance in poultry nutrition, previously supplied for the most part by milk.

MEAT SCRAP AND FISH MEAL.—The shortage of meat scrap and fish meal has been overcome by making increased use of soybean meal. The proteins of soybean meal are much superior to most other proteins of plant origin and require little supplementation with animal protein in order to make rations containing them adequate. The results of experiments conducted at Cornell university show that the amounts needed for this purpose are somewhat less than those called for in the protein conservation program of the government and the Feed Industry Council.

The deficiency in soybean proteins appears to be due to the presence of an insufficient amount of the essential amino acid, methionine. Research work under way at a number of experiment stations indicates that it may be possible to overcome this deficiency within the near future without use of animal proteins. Therefore, the outlook on the protein situation, insofar as it concerns the quality of the ration is encouraging.

BONE MEAL.—The shortage of steamed bone meal has been largely overcome by making use of raw rock phosphate and defluorinated rock phosphate. The latter is to be preferred because of lower fluorine content. Where available, it can be used as a complete substitute for steamed bone meal. Only a limited quantity of raw rock phosphate—not more than 1 per cent of the entire ration—can be used in poultry rations because of danger of causing the development of fluorine poisoning. The production of defluorinated rock phosphate has been encouraged by means of an increased ceiling and by granting

priorities on necessary equipment. Within the ensuing year, therefore, it appears probable that the shortage of steamed bone meal will be taken care of by the production of sufficient amounts of defluorinated rock phosphate.

New Type All-Purpose "Protectioneered" Motor

Following months of research and practical operation in the field, Fairbanks-Morse has now announced a New type, All-Purpose, Continuous-Duty, Polyphase Squirrel-Cage Induction Motor for use in all kinds of industry.

This new motor is protectioneered and according to the company, embodies many special and vital features that will be viewed with extreme interest by motor users everywhere.

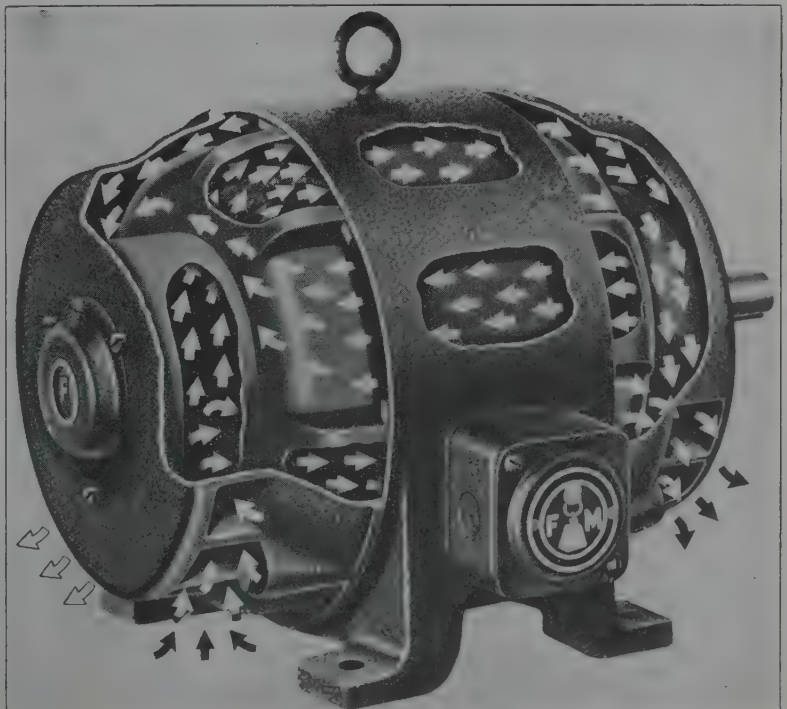
Constructed with the widely recognized and exclusive centrifugally-cast F-M Copperspun Rotor, this new motor is fully protected against flying chips, falling particles, and other industrial motor hazards. The ball bearings sealed in cartridge-type housings minimize expensive shut-downs due to bearing failures. Cross-flow ventilation, a feature in frames 224 to 365 inclusive, is obtained through protected inlets and exhausts at each end of the motor, resulting in uniform cooling and the elimination of hot spots.

Regardless of the position of the motor, complete safety for the operator is assured because there are no moving external parts. The frame is cast in one piece with rib sections to give added strength without increase in weight.

The new motor also incorporates an innovation in conduit boxes. Where space is limited, the conduit can be brought up between the motor feet to the tapped hole in the motor frame and the conduit box cover assembled flush with the frame. The external box is then discarded. When the conventional conduit box is used it can be mounted in any one of four positions.

It is rated 40°C and designed to carry 115% load continuously without injurious heating (1.15% service factor).

Complete information and motor demonstration can be obtained by writing to Fairbanks, Morse & Co., for Bulletin No. 1160 which features this new motor.



All-Purpose "Protectioneered" Motor

Effect of Storage of Grains on Their Nutritive Value

It is well known that when grains and their products are stored there is an increase in free fatty acids. This type of deterioration merits consideration in a discussion of the effect of storage of grain upon nutritive value from the standpoint of biological utilization of the fat and palatability. Crude fat is an important constituent of all animal feeds. When grains, and particularly their meals, are stored under ordinary conditions where heat or moisture may be excessive a considerable percentage of the fat content may be lost. Furthermore, determination of acidity is one of the best means for measuring the general extent of damage that may occur in grain during storage.

The work of Sullivan and Near has shown that the changes that the fats of grains undergo during storage are caused by the action of fat-splitting enzymes. The increase in acidity is correlated with increasing moisture content and with corresponding decrease in the phosphorus and nitrogen content of the lipids. Changes are greatest in those parts of the wheat highest in fat content and in enzymatic activity (germ and bran).

The development of tallowy odors in grain products, attributable to rancidity, can be delayed for long periods by appropriate control of moisture content. Fine and Olsen found that samples containing from 10 to 12 per cent of moisture were free from any apparent tendency toward tallowiness after 3 years of storage.

In an effort to devise a simple and rapid objective procedure for determining the degree of deterioration in the various cereal grains, the Agricultural Marketing Administration made a study of the various chemical changes occurring in grain and flour under different storage conditions.

It was shown that although all of the principal constituents of the grain undergo deteriorative changes when the grain is stored under adverse conditions, the carbohydrates and proteins do not show easily measurable chemical changes until the deterioration of the grain is well advanced. The cereal fats, on the other hand, break down rapidly during the early stages of grain deterioration, and the free fatty acids liberated by this process contribute materially to the titratable acidity of extracts of the grain.

Titratable acidity has been recognized for years as a possible index of grain deterioration, and a number of methods for quantitatively determining this acidity have been devised. A comparison of the results obtained by these various methods showed them to be widely divergent and, generally speaking, not even comparable with one another. A critical study of the acids formed during grain deterioration and of methods for their determination was, therefore, undertaken.

It was found that the principal acidic components of grain could be classified as (1) fatty acids formed by the enzymatic breakdown of fats, (2) acid phosphates formed by the enzymatic breakdown of phytin and (3) amino acids formed by the enzymatic breakdown of proteins and generally reacting as acids only in an alcoholic solution. The different methods proposed for the determination of titratable acidity in grain actually measure different types of acids or different combinations of more than one of the above-mentioned types; and for this reason, do not in general give similar or even comparable results.

In sound grain the acidity due to free fatty acids is a very small part of the total titratable acidity, but as deterioration progresses this "fat acidity" increases at a very much more rapid rate, particularly during the early stages of deterioration, than does either the phosphate acidity or the amino acid acidity. For this reason, a fat acidity measurement is a much more sensitive index of grain deterioration than is a

measurement of either of the other types or of any combination of types of grain acidity.

"Fat acidity" has been arbitrarily defined as the number of milligrams of potassium hydroxide required to neutralize the free fatty acids extracted from 100 grams of grain and calculated on a dry matter basis. The fat acidity value has been shown to be a more reliable index of grain deterioration than is the "acid value" of the grain fat. The two values are not comparable because of the variation in fat content among different lots of grain.

Practical methods for determining fat acidity have been developed, including a rapid method suitable for commercial inspection procedures, by which the complete determination may be made in about 45 minutes.

It is not possible at this time to state precise limits in fat acidity values which definitely indicate the suitability of grain for specific purposes. It may be stated, however, that initial fat acidity values of freshly harvested, sound wheat and corn are less than 20 and probably usually less than 15. Badly deteriorated grain may have fat acidity values of over 100 in the case of wheat and over 200 in the case of corn. Further research and experience is needed to determine the relationship between fat acidity values and the storage, processing, and nutritional values of the grain.—Circular 116, National Research Council.

Corn Shortage Feared

Indications are that the nation faces a relatively deficiency of approximately 500,000,000 bus. of corn before another crop is harvested in the Fall of 1944. This is the conclusion of Nat C. Murray.

This situation is the cause of the small movement of the actual grain to terminal markets, he points out, and not as some believe that farmers are refusing to send their corn to terminals because they are on strike. Farmers must decide on their production plans for an entire season and must conserve their feed to meet the needs of their program. Murray explains that the increase in corn consuming animals suggests that 200,000,000 more bus. of corn will be needed this year than in the past year, while the crop now growing, plus the estimated supply of old corn on farms and in commercial channels, totals around 300,000,000 bus. under that of a year ago.

James N. Russell, former president of the Kansas City Board of Trade, who retired some years ago from the grain business, has entered the employ of the spares department of the Douglas aircraft plant at Santa Monica.

Temporary structures for the storage of soybeans are not recommended. Conversion of corncribs and already existing bins is preferred to the putting up of temporary buildings. Because of the weight (48 lb. per cubic foot) and the mobility of the stored beans the side wall pressure is such that cribs should not be more than half filled. One-fourth inch mesh wire cloth nailed inside the studding is recommended to provide air circulation.—Missouri Agr. Exp. Sta.

Books Received

FACTS About FIRE supplies material for the use of those who are endeavoring to acquaint the general public with the seriousness of the loss of life and property in the United States and Canada. The near approach of Fire Prevention Week, Oct. 3 to 9 makes this publication timely. The factual data and authoritative statements therein may be used to prepare addresses before civic clubs, chambers of commerce, safety councils, schools, employee groups and all other gatherings. Paper, 16 pages, the National Fire Protection Ass'n, 60 Battery-march St., Boston, Mass., price 5c.

Grain Shipping Books

Railroad Claim Blanks duplicating, three different books, five forms, 8½x11 in., \$2.25 each book, plus postage.

Shipping Notices duplicating, 50 originals of bond paper, 50 duplicates, press board cover, 5½x8½ inches, weight 8 ozs.; 2 sheets of carbon. Order 3SN. Single copy 75 cts.; three copies \$2.00, plus postage.

Shippers' Certificate of Weight duplicating, 75 originals of bond paper, 75 duplicates. Press board hinged back covers, three sheets of carbon, 4½x9¾ inches, weight 11 ozs. Order 89SWC. Single copy \$1.00; three copies \$2.75, plus postage.

Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size 10½x15¾ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.85, plus postage.

Shippers Record Book is designed to save labor in handling grain shipping accounts and provides for a complete record of each car shipped. Its 80 double pages of ledger paper, size 9¼x12 inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, 2½ lbs. Order Form 20. Price \$2.75 plus postage.

Sales, Shipments and Returns. Is designed to save time and prevent errors. The pages are used double; left hand pages are ruled for information regarding "Sales" and "Shipments"; right hand page for "Returns." Column headings provide spaces for complete records of each shipment on one line. Book contains 80 double pages of ledger paper, size 10¼x16 inches, with 8-page index. Spaces for recording 2,320 carloads. Bound in heavy gray canvas with keratol corners. Weight, 3¾ lbs. Order Form 14AA. Price \$3.45, plus postage.

Record of Cars Shipped facilitates keeping a complete record of cars of grain shipped from any station, or to any firm. It has column headings for Date Sold, Date Shipped, Car Number, Initials, To Whom Sold, Destination, Grain, Grade Sold. Their Inspection, Discount, Amount Freight, Our Weight Bushels, Destination Bushels, Over, Short, Price, Amount Freight, Other Charges, Remarks. Book contains 80 double pages of ledger paper, size 9¼x12 inches, with spaces for recording 2,320 carloads. Well bound in heavy black pebble cloth with red keratol back and corners. Shipping weight, 2½ lbs. Order Form 385. Price \$2.75, plus postage.

Grain & Feed Journals

CONSOLIDATED

327 South La Salle St., Chicago, Ill.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

CALIFORNIA

Los Angeles, Cal.—A 10c an hour wage increase for all classifications in the Globe Mills Feed Yard here, retroactive to June 1, was negotiated by the International Longshoremen's & Warehousemen's Union of CIO, local 126.

Orland, Cal.—Cleve White of San Francisco has purchased the Farmers Exchange Mill, owned and operated by Art Edwards. Mr. Edwards has operated the mill for over 25 years, but has been forced to discontinue because of ill health.

Puente, Cal.—Leo Hohenshelt, 46, of El Monte, superintendent of the C. C. Stafford Milling & Warehouse Co., whose warehouse burned with its contents early Aug. 19 at a loss estimated at \$20,000, collapsed and died a few hours following the fire, in an unburned portion of the warehouse. Mr. Hohenshelt had been on duty aiding in fighting the fire since 4 a.m. when called to the plant after the fire had broken out. Workers found him lying dead on the floor of the damaged building shortly after noon. He had been superintendent of the plant since 1931. Among contents of the warehouse that burned were 1,800 sacks of ground alfalfa meal and 30,000 empty sacks. The frame building was 75x124 ft. in dimensions. A firewall and effective fire fighting saved the adjoining alfalfa grinding mill.

CANADA

Winnipeg, Man.—R. R. Emerson, vice-pres. and general manager of the National Grain Co., Ltd., was elected president of the North-West Line Elvtr. Ass'n at its recent annual general meeting here.

Winnipeg, Man.—The Canadian Wheat Board has announced it will buy all sunflower seed of the 1943 crop offered it by producers on the basis of 5c lb., in reasonably clean condition, delivered f.o.b. shipping points to be named by the board. In addition, moisture content must not exceed limits to be determined by the board. Discounts will be established for sunflower seed which does not meet the requirements of quality specified.

Fort William, Ont.—The Canadian Wheat Board on Sept. 13 announced that the subsidy payable to millers of Canada on deliveries of flour and wheat products during the month of August for domestic consumption will be based on an average of \$1.1075 a bushel for No. 1 Northern wheat, in store at Fort William, and at \$1.18625 a bushel on No. 1 C.W. amber durum wheat. The July drawback was based on \$1.0925 for No. 1 Northern and \$1.14 for No. 1 C.W. amber durum wheat. The Canadian Wheat Board also announced that if, during any month, the price of No. 1 Northern wheat rises to a premium of more than 4c per bushel over No. 2 Northern wheat, the Board, under provisions of order-in-council P.C. 6602, Aug. 19, 1943, may determine the "monthly average price" for No. 1 Northern wheat by adding 4c per bushel to the average price of No. 2 Northern wheat.

COLORADO

Melina (Fort Lyon P. O.), Colo.—The Melina alfalfa mill, recently purchased by the Denver Alfalfa Milling Co., burned recently. The fire is believed to have started from the grinder. The plant will be rebuilt, John Bressler, local manager, stated.

ILLINOIS

Arcola, Ill.—T. E. Hamman & Co. have been succeeded by the Williams Grain Co. here and at Pilson, Kemp and Hindsboro, Ill.

Aurora, Ill.—Richard Parker Hawley, 48, a former St. Joseph, Mo., resident, who was sales manager for the Acme Feed Co., died at Hines Hospital Sept. 7.—P. J. P.

Pana, Ill.—Fire in the cupola of the Shellabarger Elvtr. Co. elevator recently was extinguished by the fire department before it did any damage. The blaze was caused by friction.

Pittsfield, Ill.—J. N. Chisam, superintendent of the Boonville Mills Co., Boonville, Mo., until the mill burned a number of months ago, has become superintendent of the M. D. King Milling Co.

Plano, Ill.—The Illinois Farm Supply Co. of Chicago will open a plant here to grind alfalfa and cottonseed cake into meal. Homer Pogue and Maurice Johnes of Shelbyville are getting the plant in shape.

Kansas, Ill.—The Kansas Grain Co. has built a driveway from the west of its elevator for the convenience of its customers who heretofore, when entering the east driveway, were forced to back out.

Roanoke, Ill.—The former Wrenn elevator is being transformed into a feed mill by the Eureka Milling Co., recent purchaser of the elevator. The old inclined driveways are being removed and the driveway entrance will be from street level.

Buckley, Ill.—Harold Morgan recently resigned as manager of the Farmers Co-op Grain Co. elevator, having purchased an elevator at Clifton, Ill. Robert Kohlman has been hired to succeed him and will take over his new duties Oct. 1.

Chebanse, Ill.—Robert Bruce, owner and manager of the Bruce Elevator, has retired from business, selling his elevator to B. J. Wallace, owner and operator of an elevator at Clifton. Mr. Wallace assumed possession at once, placing Herman Methy in charge as manager. Mr. Bruce had operated the business for the past 11 years.

Ellsworth, Ill.—I have bought the grain and coal business here of T. R. Bane and will operate the two elevators, which have a capacity of 70,000 bus., under the business name of Wayne Van Gundy. I was formerly a partner in the firm of Dennis & Van Gundy, owners and operators of these elevators for twenty years.—Wayne Van Gundy.

CHICAGO NOTES

Caspar de Gersdorff recently retired from partnership in the firm of Harris, Upham & Co.

Recently admitted to membership in the Board of Trade were: Walter M. Lambert, Muir & Co.; Herman N. Scheer, Scheer & Eis; Melville D. Weingarten, Weingarten & Co.; Jacques A. Davis, all of New York, N. Y.

Directors and officers of Allied Mills, Inc., were re-elected at the company's annual meeting on Sept. 8. They are: John B. DeHaven, pres.; Harold J. Buist, executive vice-pres. and treas.; Allen G. Philips, vice-pres.; Elmer W. Lenz, sec'y.; John J. Quinlan, ass't sec'y-treas. Directors: Mr. DeHaven, Thos. G. Lovelace, John D. Buhrer, Guy A. Thomas, A. G. Heidrich.

William Hawley has succeeded the late Henry P. W. Keir as superintendent of Norris Grain Co.'s "Wabash" elevator. Mr. Hawley is a brother of the late Fred E. Hawley, who was general superintendent for the company. Willard Gallup now is in full charge of the "Norris" elevator operated by the company. He formerly worked under Fred Hawley, whose offices were at this elevator. John Shawcroft, formerly superintendent of the Illinois Central elevator, now being razed, is in charge of the Norris Grain Co.'s "J" elevator.

INDIANA

Vincennes, Ind.—A soybean mill will be constructed here, to be ready for operation this fall.

Shelbyville, Ind.—A new soybean mill to be built here will be ready for operation this fall, it was announced.

Wabash, Ind.—A new soybean mill will be constructed here, to be in operation this fall. Capacity, 330 bus. a day.

Danville, Ind.—A soybean plant which burned here recently is being rebuilt and will be in operation shortly, the U. S. Dept. of Agr. War Board recently announced.

Hartford City, Ind.—Francis W. Knecht, part owner of the Knecht Milling Co. until a few months ago when he sold his interest because of ill health, died Aug. 20.

Argyle, Ind.—The A. W. Headrick Elvtr. Co. sustained a small fire loss on Aug. 9, caused by an electric supply line accidentally coming in contact with the office roof.

Milford, Ind.—George W. Felkner has sold his interest in the Milford Grain & Milling Co. to Roman E. Slabaugh. Mr. Felkner will retire because of the almost complete loss of his sight.—A. E. L.

Santa Fe (Peru R.F.D. 5), Ind.—The Miami County Farm Bureau Ass'n is installing an additional 1.5 ton feed mixer here and a new electric truck hoist at Bennetts Switch (Kokomo R.F.D. 3).—A. E. L.

Kempton, Ind.—Fire that started in the cob house spread to the Cohee & Clark elevator Sept. 8, destroying the structure. Only the offices and feed rooms were left standing. Farmers and residents of the community aided elevator employees to remove grain stored in the structure and all grain was saved.

Montpelier, Ind.—The Johnson Elevator has been purchased by the Blackford County Farm Bureau Co-operative Ass'n and will be operated as a unit of the Farm Bureau Co-op Store as the Farm Bureau Co-operative Elevator. Warren Langdon is manager and Clarence Schwartzkopf, service manager in charge of custom grinding and mixing, service and products. A complete line of chick and hog feeds and coal will be handled.

Lafayette, Ind.—A Nutrition School will be held Thursday and Friday, Sept. 30 and Oct. 1, at Purdue University. The school is sponsored this year by the Indiana Feed Conservation Council and participating are: Purdue University, Indiana Farm Bureau, Indiana State War Board, Indiana Grain Dealers Ass'n, Farmers Elevators & Co-operatives, Feed Industry Council, Indiana State Poultry Ass'n, Indiana Poultry & Egg Imp. Ass'n, Indiana Dairy Ass'n, Indiana Livestock Breeders Ass'n, Indiana Feed Mfrs., and Indiana Veterinary Medical Ass'n.

New Paris, Ind.—Martin's Feed Mills will be improved and new equipment will be installed in feed mill.—A. E. L.

Millstadt, Ind.—The Millstadt Milling Co. will go ahead with the plan perfected by Harvey Blatz, plant superintendent, to install a locker plant at the feed mill.

Indianapolis, Ind.—Chris Wishmire of the inspection department was the guest of the members of the Board of Trade on the Trading floor Friday, Sept. 10, commemorating fifty years of service with the exchange. Mr. Wishmire began work with the Board of Trade in 1893 at the age of 13, running the old rope drive elevator in the old building at Maryland and Senate Sts. He later entered the inspection department and worked up to ass't chief inspector, which position he still holds. The members presented him with a fine fishing outfit, war bonds, and a purse to take Mrs. Wishmire out to "paint the town."

Indianapolis, Ind.—Lew Hill is justly proud of the record set up this year by Junior Baseball, Inc., of which Mr. Hill is pres. and treas. This activity is a junior delinquency program in which 1,000 Indianapolis boys organized a baseball league of 73 teams which played scheduled games three days a week at the recreation centers from May thru September. Equipment was provided for all players thru public subscription and exhibition games, and each of three groups selected the most valuable boy in their groups who were rewarded with a trip to the World Series at St. Louis, with all expenses paid for the boys and their fathers.

IOWA

Griswold, Ia.—The Bates Elevators will buy flax this year.

Terril, Ia.—Homer Arthur has opened a new feed store here.

Logan, Ia.—J. L. Berogan is new manager of the E. A. Milligan & Son elevator.

Buffalo Center, Ia.—A 20x44 ft. addition has been built to the Harringa Feed Store.

Moorland, Ia.—Remodeling of both grain elevators owned by E. A. Bowles started recently.

Charles City, Ia.—H. H. Haines has opened a new feed store where he will handle a full line of Purina products.

Ames, Ia.—Jack Engeler has been transferred here from Sioux Falls, S. D., by the W. M. Bell Co., Milwaukee, Wis.

Cedar Rapids, Ia.—Charles L. Douglass, 77, vice-pres. and district representative here of E. W. Bailey & Co., from 1907 to 1941, died Sept. 3.

Lake City, Ia.—The Mighell Grain Co. has awarded a contract to Tillotson Construction Co. to rebuild its grain elevator, damaged by fire.

Walford, Ia.—N. E. Weland has recently sold his grain elevator here to Ray Pollock of Cedar Rapids. The new owners will take possession Oct. 1.

Dysart, Ia.—Hans Weick has purchased the M. S. Barnes building, and will use it for his feed and livestock business. Possession will be given on Oct. 1.

Woolstock, Ia.—G. D. Lizer, auditor for a Fort Dodge grain company, dropped dead Sept. 14, while addressing a meeting of the Grain Dealers Ass'n here.

Des Moines, Ia.—The Board of Directors of the Western Grain & Feed Ass'n recently voted to hold a one-day convention here Nov. 29.—Mark G. Thornburg, sec'y.

Des Moines, Ia.—The Western Grain & Feed Dealers Ass'n, in conjunction with the Iowa Feed Institute, plans to hold a meeting here at Hotel Fort Des Moines on Oct. 14.

Mitchellville, Ia.—Charles Craig has sold his elevator business to L. O. Wise of Des Moines, who took possession Sept. 7. Mr. Craig retires from the business he has operated for 33 years.

Dunkerton, Ia.—The Agnew Grain Co., operated by A. G. Agnew, has been sold to Shimp Bros. Mr. Agnew has been in ill health for the past several months, but is convalescing.

Danbury, Ia.—Hagemeister & Quirk of Crawford, Neb., have purchased the Burke Elevator from Charles F. Seibold, who has owned the elevator for the past several years. The elevator will be opened to the public when corn starts moving.

Jefferson, Ia.—The C & M Produce, owned and operated by Earl Curry and Ed. Millard, will move to the building recently vacated by the D & D Co. They will operate their business of produce buying and in addition have taken on the Ames Reliable Feed line.

Newton, Ia.—The Hawkeye Produce Co., formerly owned by Paul Manning, of Des Moines, has been purchased by M. J. Callan, former salesman for the Quaker Oats Co., Cedar Rapids, and Byron Kier, formerly engaged in the produce business in southern Iowa and Missouri.—A. G. T.

Fredericksburg, Ia.—J. Roach Sons, Inc., have purchased the Fredericksburg mill from Harold Beaver and are moving machinery from Eldorado, including a mixer, electric attrition mill, oat huller and complete set of milling equipment. Clark Shuffbeam of Plainfield will manage the business.

Clinton, Ia.—Edwin H. Utroska has been appointed manager of the grain department of The Clinton Co., and Thomas H. Smith, manager of the traffic department. Both have been identified with the company for many years. They succeed the late J. J. Killeen, who directed the activities of both departments.

Nora Springs, Ia.—Henry J. Hamilton, 82, for many years owner and operator of what is now the Farmers Elevator, died at his home in Ontario, Cal., Aug. 3. He sold his elevator business here to the present owners in 1914, taking up extensive ranching operations in California at that time.

Fairfield, Ia.—Fairfield soybean mill, which is to be operated in what was formerly the Turney wagon works plant, may open about Oct. 1, according to Joe Sinaico of Cedar Rapids, the owner. Workmen are making necessary changes and repairs but some machinery for which Sinaico has priorities is not yet on hand.

Cherokee, Ia.—Cherokee County farmers and other guests numbering 175 attended the annual dinner given by the Allison Feed Milling Co. recently at the Methodist Church. Bob Sucher, manager of the plant, and Dr. E. E. Clore of Greenwood, Ind., feed expert and veterinarian, gave brief addresses relative to the feed situation and livestock.

Alleman, Ia.—The Farmers Co-op. Elevator Co. has taken over the store of the Alleman Mercantile Co. and the Co-op. Service Station, which are being operated as the Alleman Co-op. Co. The officers of the elevator company are officers of the new company and Joe Smay will continue as manager. Merville Zimmerman is manager of the store and locker plant.

Hubbard, Ia.—A \$40,000 40x100 ft. soybean mill is under construction just north of the Farmers Elevator and will be operated in connection with the elevator under the supervision of Harry Grubbs, elevator manager. The processing plant will have a capacity of 1,500 bus. a day. The machinery has been ordered and it is expected to have the plant ready to take care of this fall crop.

Centerville, Ia.—Under recent re-organization plans the Standard Soy Bean Mills ceases to be a corporation and becomes a partnership. Harry Schultz, general manager, announced. The corporation was dissolved and the partnership set up so that some of the plant's earnings might be retained and set aside in a sinking fund to be used for the rehabilitation of the plant following the war emergency. Mr. Schultz stated. This is not possible, he said, under the present method of assessing corporate taxes.

Mt. Vernon, Ia.—Bachman's Feed Service celebrated formally the opening of its new location Sept. 11 with open house. During the evening free coffee and doughnuts were served and an interesting program presented. Charles G. Bachman is senior partner and Ralph V. Bachman, junior partner. The new location offers modern facilities for the convenience of customers, as well as a larger stock. Grinding and mixing-service is specialized in and customers are invited to have their own formulas mixed.

Waterloo, Ia.—A small group of feed men met here Sept. 1 with Congressional Representative John W. Gwynne to discuss problems of the feed industry. Carl Orsinger, Waterloo Mills Co., who is a director of the Western Grain & Feed Ass'n, called the meeting. Mark G. Thornburg, sec'y of the ass'n, was present and spoke. Similar meetings were held in other parts of the state, sponsored by the ass'n, their purpose to keep legislative representatives in Washington aware of what the feed industry is doing in the battle of feed production.



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Sheldon, Ia.—The Big Four Soybean Ass'n mill is rapidly nearing completion. The processing plant is capable of handling 1,500 bus. of beans per day. Storage space amounts to 60,000 bus. Lee Parmenter is manager of the ass'n.

Clinton, Ia.—Pillsbury Feed Mills held a meeting at Clinton Country Club Sept. 10 participated in by representatives of the company from 18 midwestern and eastern states representing three of the company's eight feed mills. Highlighting the meeting was an address by Philip W. Pillsbury, Minneapolis, president of the Pillsbury Flour Mills Co., of which Pillsbury Feed Mills is a subsidiary. "The Pillsbury company is still gearing its program completely toward helping win the war," he said. "The end of the war is still a long way off—months and months. At the same time, while helping win the war, the Pillsbury Company is planning for peace." Other speakers included Clyde H. Hendrix, general sales manager of the Clinton feed division, and M. E. Cook, Pillsbury Feed Mills advertising manager. Beginning of construction of the new Pillsbury soybean processing plant on the site of the former MacX plant was recognized in a brief ceremony in which Mr. Pillsbury, R. P. O'Brien, vice-pres. in charge of the feed division, Mr. Hendrix, John Little, Clinton plant superintendent, and other Pillsbury officials took part. Mr. O'Brien said "Post war planning for expansion of operations of the feed mills division services to the American farmer is definitely a part of our program, as evidenced by the construction of the new soybean plant. Construction is being pushed night and day, to help overcome the protein shortage in livestock and poultry feeds that will face the nation and the world for years following the war."

KANSAS

Weskan, Kan.—C. D. Clark & Son recently installed Calumet Cups in their elevator.

Wichita, Kan.—Hale W. Manuel has been admitted to membership in the Wichita Board of Trade.

Hutchinson, Kan.—The Consolidated Flour Mills Co. sustained an electrical damage loss on Aug. 24.

Partridge, Kan.—The Norris Grain Co. elevator was damaged by high winds on Sept. 1. The loss was small.

Dwight, Kan.—High winds recently did a small amount of damage to the Carl A. E. Johnson elevator.

Hutchinson, Kan.—Hal Davis, sec'y-treas. of the Western Terminal Elvtr. Co., is in a hospital as a result of a severe heart attack.

Hiawatha, Kan.—Alvin Wolfe recently leased the old Farmers Elvtr. Co. elevator and will do a general buying and shipping grain business.

Manning, Kan.—O. J. Unruh, local manager for the Geo. E. Gano Grain Corp. for several years, resigned recently and has been succeeded by Barnard Campbell.

Sterling, Kan.—The Arnold Milling Co., which applied for permission to raise the wages of men thruout the plant and office employees, has been granted approval of the Regional War Labor Board to do so.

Speed, Kan.—J. I. Paramore, who has been manager of the Logan Farmers Co-op. Ass'n elevator here for 22 years, resigned recently because of ill health. W. C. Klink has succeeded him as manager.

Medicine Lodge, Kan.—O. S. Evans is new manager of the Kansas Milling Co. elevator, succeeding E. I. Hull, who has moved to Wichita. Mr. Evans formerly was employed by the Kansas Milling Co. at Portland.

Marion, Kan.—The Peabody Milling Co. has purchased the Red Elevator from Dave Ehrlich. Mr. Ehrlich will continue temporarily as local manager. The elevator will continue to handle a full line of feeds and buy all kinds of grain; also sell coal.

Macksville, Kan.—Chester Maxwell, former manager of the Geo. E. Gano Grain Corp. elevator, who forged the names of farmers to wheat checks, an account of whose arrest was printed in the June 29 issue of the Journals, was sentenced to seven years in the state penitentiary and started serving his time last June. Due to the fact that his company was unable to get a weigh-up at his station on account of carrying C.C.C. wheat, it was unable to detect this shortage. His forgeries were discovered when the elevator books were checked and the wheat was missing.

KENTUCKY

Henderson, Ky.—The Kentucky Co-operatives, Inc., will establish an agriculture processing mill, possible site of which is the property adjoining the Ohio Valley Co-operative soybean plant here. Thirty-five delegates from the Tri-State voted approval of the project at a recent meeting held here. A total of 750,000 common and preferred stock will be issued. The mill will process agriculture products. C. W. Maloney, Madisonville, was named president of the board of directors. Other officers are: Frederick Williams, Spottsville, vice-pres.; Stanley Hoffman, Henderson, sec'y-treasurer; Joe Betz, ass't sec'y-treasurer. Ruddell Wilson, Smithland, Ky., W. J. Foster, Stanley, and Bert Ashworth, Tell City, also are on the board of directors.

LOUISIANA

New Orleans, La.—Proposed regulations on rough rice and other matters of interest to the rice industry were discussed Sept. 16 by the advisory committee of rice millers industry at a meeting in the St. Charles Hotel. J. Bruce Hancock, senior business analyst of seeds and rice section of the O.P.A., Washington, led the discussion. During the meeting proposed rough rice regulations calling for the fixing of maximum prices at growers level were discussed.—P. J. P.

MICHIGAN

Clio, Mich.—The F. M. Houghton Co. has added a Triumph Corn Sheller and a corn cutter.

Batavia, Mich.—A Sidney Mixer and 5 h.p. motor recently were added to the Batavia Elvtr. Co. equipment.

Colon, Mich.—The Colon Elvtr. Co. has purchased a twin screw feed mixer.

Carson City, Mich.—The Lyon Milling Co. recently sustained a small amount of damage from high winds.

Nashville, Mich.—A corn crusher, driven by a 7½ h.p. motor, has been installed in the Nashville Co-op. Elvtr. Co. plant.

Albion, Mich.—The Albion Elvtr. Co. has installed a Blue Streak Hammer Mill driven by a 60 h.p. fully enclosed motor.

Melvin, Mich.—New coal sheds 125 ft. long, with concrete foundation at base, are being erected by the Kerr Grain & Hay Co.

Bauer (Jenison P. O.), Mich.—The Farmers Co-op. Elvtr. Co. of Hudsonville recently started the erection of a feed mill at this station.

Lapeer, Mich.—The attrition mill operated by the Lapeer Grain Co. will be moved to the basement and pneumatic feed collecting system added.

Breckenridge, Mich.—Wilbur Hubbard, former manager of the Ithaca State Bank, is the new manager of the Breckenridge Farmers Elvtr. Co.

Byron Center, Mich.—The Byron Center Co-op. Co. has purchased a hammer mill and feed mixer. The mill is equipped with tramp iron separator.

Almont, Mich.—Wm. H. King is adding a second hammer mill to be driven by a 50 h.p. motor. He also is adding a Sidney Vertical Feed Mixer.

Dryden, Mich.—The Bishop Elvtr. Co. plant here is being improved by the installation of a hammer mill, driven by a 50 h.p. motor. A Sidney Mixer also is being installed.

Addison, Mich.—The Addison Flouring Mill Co. has purchased a hammer mill to be driven by a 50 h.p. fully enclosed motor. The mill is equipped with a tramp iron separator.

Hadley, Mich.—Walter C. Hartwig, who purchased the feed mill at this station last year, has installed a new hammer mill, a 1-ton mixer and a cleaner, all driven by electric power.

Galien, Mich.—Morley Bros. of New Troy, who recently purchased the Pardee Elevator, are installing a hammer mill to be driven by a 50 h.p. motor, and a Triumph Sheller, with cob elevator. The mill will be equipped with tramp iron separator.

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MINNESOTA

Merritt, Mich.—A 32x40 ft. addition has been added to the feed mill of the Falmouth Co-op. Marketing Ass'n. The ass'n also has purchased two small warehouses for additional storage.

Dowagiac, Mich.—Oscar Thierstein, the new manager of the Dowagiac Milling Co., reports the installation of a Jaden Air Conditioner, and the replacement of all stocking dust collectors with collectors of the cyclone type.

Eaton Rapids, Mich.—A larger size hammer mill, driven by a 50 h.p. Westinghouse enclosed motor, is being installed in the Long Bean & Grain Co. feed mill. The mill is equipped with a tramp iron separator.

Harbor Springs (Scottville P. O.), Mich.—The Michigan Potato Growers has purchased the feed and implement store operated by Leon Ayers and his father for the past 17 years. Mr. Ayers, Sr., died two years ago.

Peck, Mich.—Recent improvements at the Yale Elevator Co.'s plant here include an 8 ft. addition to the bin storage and a 60 ft. warehouse addition. Several fully enclosed motors were installed to drive the elevator legs and a Crippen Loading Fan.

Albion, Mich.—New equipment recently installed in the E. J. Young Elevator consists of a Sidney Corn Sheller driven by a 7½ h.p. enclosed motor, and additional power on the hammer mill consisting of one 50 h.p. enclosed motor for driving the hammer mill with a separate 15 h.p. enclosed motor for driving the fan.

Lansing, Mich.—Stockholders and managers of the Michigan Elevator Exchange met in annual session Sept. 8 at the Hotel Olds. Directors re-elected were: Andrew Lohman, Hamilton; Howard Sanford, Battle Creek; Frank Gilmore, Parma; Frank Reed of Cass City was elected to fill the unexpired term of the late Ernest Erwin of Saginaw.

Caro, Mich.—Staff Sgt. Donald C. Jensen, formerly manager of the Lang Feed Co., is a German prisoner, according to information received by his parents, Mr. and Mrs. Charles R. Jensen, Dearborn, Mich. He was a flying fortress gunner and enlisted 18 months ago. He was reported missing in a raid over Oschertebem, Germany, on July 28.

Mecosta, Mich.—The local elevator which has been idle for about a year will be reopened shortly under new ownership. The three partners in the business are Milton Curtis, manager of the Ithaca Elvtr. Co.; W. G. Hubbard, manager of the Breckenridge Farmers Elvtr. Co., and Paul G. Rohman of Wayne Feed Co. The plant will be electrified, and a new feed mill installed. Byron Swiler, formerly manager of the McBain Grain Co., will be the new manager.

Trail, Minn.—The roof of the Christopher-son, Dahl & Dahl elevator was badly damaged by recent high winds.

Montgomery, Minn.—The Interstate Power Co. has contracted to purchase the power plant of Commander Mills.

Louisburg, Minn.—A corn crib of the Louisburg Farmers Elvtr. Co. was demolished by high winds on Aug. 28.

Mahnomen, Minn.—High winds recently did considerable damage to the roof of the Mahnomen Flour Mfg. Co. mill.

Ruthton, Minn.—Dr. Ben Anderson and P. O. Peterson have formed a partnership and opened a feed store in the Peterson building.

Bixby, Minn.—The Edmond feed mill will install a new and improved feed mixer, one ton capacity, double the size of the present one.

Erskine, Minn.—Fire badly damaged the feed room of the Erskine elevator on Aug. 28, but was prevented from spreading to the elevator proper.

Welcome, Minn.—Fire destroyed the Farmers Elevator Sept. 15, the flames starting in the cupola. The elevator was built in 1899.—P. J. P.

Osseo, Minn.—Arnold Emholtz celebrated the opening of his feed store in the Bergeng building, which he purchased, with a grand-opening on Sept. 4.

Redwood Falls, Minn.—George A. Paton, 71, manager of the Redwood Falls Farmers Elevator for 28 years until his retirement in July, 1941, died Sept. 2.

Windom, Minn.—The Kileen & Wille Construction Co. was awarded the general construction contract for buildings to house the Northwest Flax Industries' new flax fiber plant here.—F. G. C.

Sanborn, Minn.—Glenn Tainter of Verdi is new assistant manager and accountant of the Farmers Elvtr. Co. He had been manager of the George P. Sexauer & Son elevator for eighteen years at Verdi.

Edgerton, Minn.—Charles J. Tinklemberg and Ben Hendricks, who compose the T. & H. Co., feeds, have bought the double brick two-story building which they have occupied in part in recent months, and will continue to use it as in the past.

Fairfax, Minn.—The Farmers Grain & Stock Co. elevator has been completed and business has been resumed there. The elevator underwent extensive rebuilding and remodeling; new offices and a new director's room were built; modern new equipment installed for cleaning all kinds of grain and seeds. H. Harter, formerly a grain man of Wakando, is new manager.

Caledonia, Minn.—Irwin Schroeder, an employee of the Graf Mill for the past six years, has purchased the business from J. C. Graf and has taken over complete management of the mill. Mr. Graf plans to spend the winter months in the south.

Rose Creek, Minn.—Will Pierce, former resident of this, Le Roy and Dexter communities, died at his home in Minneapolis Sept. 7 following a heart attack. Mr. Pierce retired from business last spring; for six years before he operated an elevator here.

Silver Lake, Minn.—Frank J. Mallak has purchased the Victoria Elevator, opening it for business Sept. 1 as the Mallak Elevator. Mr. Mallak has been manager of the elevator for four years, previously operating the Mallak Coal Yards. He will continue to handle coal, feed and gasoline; oils, etc.

Lake City, Minn.—The Farmers Elvtr. Co. recently completed installation of a new Fairbanks 30-ton Dump Scale, with 9.5x34 ft. deck, and equipped with a 76-inch Strong-Scott Air Lift. Other improvements include widening of the driveway and installation of new folding doors. J. H. Roschen is the manager. Henry E. Olson made the installation.

Nimrod, Minn.—Ernest Westra, who lost his large feed mill and machinery parts store building by fire recently, will replace same with a modern and fireproof building. The foundation for the new feed mill and store has been completed, the new structure to be 30x80 ft. in size, built of cement blocks with 12-ft. side walls. The structure will have a round roof and will be 30 ft. at the highest point. Work will be rushed to have the building completed before winter.

Ortonville, Minn.—The Farmers Co-operative Elevator has been repaired following the bursting of one of its bins recently, Herb Saumers, manager, announced. The alertness of a 13-year-old boy, Billy Berg, probably saved the life of Walter McCombe, farmer, when the elevator walls burst, releasing 3,000 bus. of flax. The man had just driven on the driveway when the boy noticed the walls bulging and shouted a warning. McCombe cleared the driveway as the deluge of flax spilled over it.

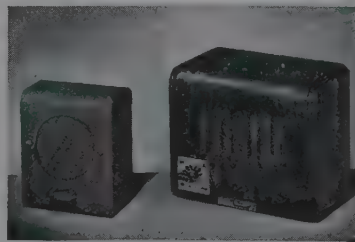
Eagle Bend, Minn.—The McGuire Produce Co. of Eagle Bend has secured a contract to grind over 40,000 tons of feed, W. P. McGuire, owner, announced. Mr. McGuire says it will mean a two million dollar transaction, and will take about a year to complete. It is expected that at the start about 100 tons of feed will be ground per day. Later it is hoped to step this up to 150 tons per day, which means 3,000 100-lb. sacks. Remodeling work has been in progress at the building. A bin to hold about 800 bus. of feed is being built at the top of the plant and it is planned to have the feed blown from the car on the track to the bin.

MINNEAPOLIS LETTER

General Mills has opened a new vegetable oil and protein division with Whitney H. Eastman as head of the division.

The Purina Mills lost about \$50,000 in live-stock feed when the W. H. Barber Co. warehouse leased by Purina Mills burned Sept. 6.

S. N. Osgood, Fruen Milling Co., has resigned as sec'y-treas. of the Northwest Feed Manufacturers & Distributors Ass'n, an office he had held since 1937. Mr. Osgood wrote "There are not half enough resignations tendered in this country today." He said his was past due.



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John H. Runston suffered lacerations of the right arm when it was caught in a cable as he was working as a loader at Washburn-Crosby Co. warehouse.—P. J. P.

The Bunge Elevator Corp. has started construction of its warehouse at 12th Ave., S.E., and Brooks. The structure will be one story, 30x60 ft., of reinforced concrete foundation, concrete block walls, reinforced floor and roof slab.

Northwest Flax Industries Sept. 16 let contracts for construction of buildings for the first flax fiber plant under a \$500,000 program to utilize the fiber to make sacks and other products. Work will get under way at once, with Dec. 1 the completion deadline, J. A. Johnson, Winona, president, stated.—P. J. P.

To help speed the movement of freight cars sorely needed to handle the grain crop, the Minneapolis Chamber of Commerce cash grain market was kept open on Labor Day, the action taken at the request of the Office of Defense Transportation and of members of the Exchange serving country shippers.

The business of the Excelsior Milling Co. has been purchased by E. J. Dougherty of the Newsome Feed & Grain Co., Louisville, O., W. T. Chapman, Midland Hay & Feed Co., and J. R. Stuart, Reliance Feed Co., from the estate of the late Frank Kovarik. The new owners will take possession Oct. 1 and incorporate under the company's old name, retaining the present personnel.

Archer-Daniels-Midland Co. reported a consolidated net income of \$4,024,317 in the fiscal year ended June 30, equal to \$7.38 a share of common or \$5.67 a share in the preceding fiscal year. The increase reflected a rise in net sales of \$149,848,450 from the year-ago total of \$121,958,172, an increase in other operating revenue to \$2,966,749 from \$2,390,442, and a relatively moderate increase in selling, administrative and general expenses to \$4,439,809 from \$4,375,215.

The first meeting of the fall season of the Northwest Feed Manufacturers & Distributors Ass'n was held the evening of Sept. 21 at the Nicollet Hotel, starting with a dinner at 6:30 o'clock. A. L. Stanchfield, local feed man who is a member of the Feed Industry Council, and George Smith, of the Archer-Daniels-Midland Co., discussed developments in the feed situation and future prospects that may affect supplies and distribution of feeds. Election of officers for the coming year was held.

MISSOURI

Springfield, Mo.—The M.F.A. Milling Co. recently installed Calumet Cups in its elevator.

Richmond, Mo.—George Manley, manager of the Ray-Carroll County Grain Growers elevator, has been named clerk of the Richmond Special Road District.

Independence, Mo.—William C. Dunn, 80, who had been associated with the Waggoner-Gates Milling Co., for 46 years up to the time of his retirement in 1933, died at his home at Winter Haven, Fla., Sept. 8.

St. Louis, Mo.—William G. Wolf, 59, died recently after a long illness. He had been a grain broker here for 10 years, having been connected with Picker & Beardsley Commission Co. prior to establishing his own firm.

St. Joseph, Mo.—Warrants charging Ted Chard and Oscar Galley with petty larceny for alleged stealing of oats from cars of the Burlington Road, were issued recently. The men were arraigned before Justice A. M. Olmsted.—P. J. P.

KANSAS CITY LETTER

The Kansas City Feed Club held its annual fall party at Indian Hills Country Club Sept. 21. Golf, dinner, prizes and a guest speaker furnished the program.

Frank Theis, vice-pres., Simonds-Shields-Theis Grain Co., will be the principal speaker at the monthly meeting of the local chapter of the Society of Grain Elevator Superintendents, to be held at the Pickwick Hotel, Sept. 21.

Kansas City, Mo.—Francis J. Fitzpatrick, vice-president of the Simonds-Shields-Theis Grain Co., who is on leave of absence to serve in the Army, has been promoted to the rank of lieutenant colonel. Lieut. Col. Fitzpatrick is senior aide to the commanding general of the Caribbean Defense Command.

Kansas City, Mo.—A. Clem Filbeck, who handles the pit operations for the Uhlmann Grain Co., returned to his work recently after a two months' absence because of illness. Mr. Filbeck suffered a reaction to an anti-tetanus treatment that was taken as a protective measure after being scratched by a dog, and was in a critical condition for some time.

MONTANA

Great Falls, Mont.—The Farmers Union Grain Terminal Ass'n will construct a grain elevator and feed warehouse, both of frame construction.

Hinsdale, Mont.—Fred Ring arrived from Bainville to assume the management of the D & B elevator, succeeding W. C. Waller, who is now employed at Williston. C. A. Vieths, who was in charge of the elevator temporarily for several weeks, has returned to his home in Fairview.

Conrad, Mont.—The Dependable Elvtr. Co., a business partnership formed several years ago by R. W. Kirkpatrick and Glen C. Kellogg, has been dissolved, as of Aug. 16. Mr. Kirkpatrick took over the elevator property and will do seed cleaning and handle coal and wood and do general trucking, the business to operate as Kirk's Elevator Service.

Hamilton, Mont.—Storage and milling capacity of the Ravalli Feed & Grain Co., operated by Paul Tschache, are being increased by improvements which will be completed in about two weeks. The work will cost approximately \$4,000. A 10,000-bu. grain storage building, 16x20 ft. and 40 ft. high, is being constructed north of the company's building on North Second.

NEBRASKA

Hershey, Neb.—Hershey Mills recently installed Calumet Cups in its mill.

Creston, Neb.—The Farmers Elevator recently installed a new electric truck hoist.

Scribner, Neb.—The Scribner Grain & Lumber Co. recently installed a new feed grinder.

Elgin, Neb.—The H. Vanderheiden mill was damaged by recent high winds. The loss was small.

Naponee, Neb.—Orville Kenneman has succeeded Frank Rosenthal at the Naponee Elevator.

Ruskin, Neb.—The Ruskin Grain Co. has installed a larger feed grinder and motor in its elevator.

Nemaha, Neb.—The Uhlmann Grain Co. recently sustained an electrical damage loss at its local elevator.

Fairbury, Neb.—Dust in a switch box at the Fairbury Mills caused a small fire recently. No damage resulted.

Columbus, Neb.—Ed. Krumland has moved his feed business to a new location at Twelfth St. and Twenty-second Ave.

Hastings, Neb.—Al Langworth, formerly located at Falls City, Neb., has been transferred to the local Goffe & Carkener grain office.

Trumbull, Neb.—George W. Hohnstein of Harvard is new manager of the Farmers Union Elevator, taking over his new duties Sept. 15.

Omaha, Neb.—N. B. Updike, head of the Updike Grain Corp., recently underwent a surgical operation at the Mayo Clinic, Rochester, Minn.

Vesta, Neb.—Willard Jose, for the past five years manager of the local elevator, has resigned and will devote all of his time to the dairy business.

Blue Springs, Neb.—W. C. Thompson, manager of the Farmers Elvtr. Co. elevator, has been called to army service. A. O. Burket, Beatrice, has been named temporary manager.

Auburn, Neb.—Harry E. Hanson, Stella, is new manager of the Allison F. Gibbs elevator. Mr. Hanson managed an elevator at Stella for a number of years and also had a feed mill at Marshall, Mo.

Falls City, Neb.—The Goffe & Carkener grain office was closed Sept. 11 and Al Langworth, who has been office manager for the past three years, was transferred to Hastings, effective Sept. 15. Closing of the office was due to the shortage of manpower.

Cornlea, Neb.—A 35,000 bu. elevator owned by Mr. Forristal was sold recently in sections to farmers who will wreck the building for the lumber and other material. The Updike Grain Corp. elevator here was sold July 1 to the Continental Grain Co., Omaha, Neb.

Peru, Neb.—The Hart-Bartlett-Sturtevant elevator is installing a new 34-ft. deck scale, a large capacity corn sheller, and building a brick and stucco office. All buildings will be given a coat of paint at the completion of the improvements. Bernie Underwood is manager of the elevator.

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Shelton, Neb.—O. R. Woodward, manager of the Continental Grain Co. elevator, recently resigned and has been succeeded by R. R. Becker of Omaha. Mr. Woodward formerly was employed by the Updike Grain Co. which recently sold the local elevator and warehouse to the Continental Grain Co.

Ord, Neb.—Construction of the new alfalfa mill being built east of here by the Saunders Mills, Inc., Toledo, O., is well under way and it is expected to have the plant in operation early in October. The plant will consist of a two-story grinding room 25x25 ft. in size, a one-story pack-off room 25x27 ft., and a 16x20 ft. warehouse, with some smaller tool sheds. Grinding and packing rooms will be of reinforced concrete and cement block construction and will be completely fireproof. Floors will be of concrete. The hay barn will be of frame and metal construction. Much of the machinery for the plant has arrived.

NEVADA

Lovelock, Nev.—The Pitt Mill & Elvtr. Co. is making improvements and alterations at its plant under the direction of Harry W. Robinson, manager. The barley handling department is being converted from the sack to the bulk method and the wheat department had been already converted.

NEW MEXICO

Clovis, N. M.—The Stone Grain & Elvtr. Co. has sold its two elevators here and at Grier, N. M., to the Farmers Co-operative Elvtr. Co., and Bob Stone, owner, is retiring from the grain business. Mr. Stone has been in the grain business here for over 20 years, under the name of Farmers Elevator Co. until 1938 and since that time under the present name. Last June he sold his elevator at Bovina, Tex., to J. P. Macon, of Texico, N. M. The Farmers Co-operative Co. operates elevators here and at Melrose, N. M.

NEW YORK

Alexander, N. Y.—The Wells-Birch Corp. has installed a S. S. & S. Bean Cleaner driven by a 10 h.p. Westinghouse Fully Enclosed Motor.

NORTH DAKOTA

Bisbee, N. D.—William F. Nelson, manager of the Atlantic Elvtr. Co. elevator, died of a heart attack Sept. 1.

Silverleaf, N. D.—The Ellendale Grain & Seed Co. has purchased the elevator here which it has operated under lease for the past several years.

Dunane Siding (Ellendale P. O.), N. D.—The Ellendale Grain & Seed Co. has acquired two elevators here owned by the C.C.C., taking possession Aug. 1.

Greene, N. D.—W. E. Grange, for the past seven years manager of the Farmers Elevator, has resigned his position and purchased an elevator at Chelsea, S. D.

Osnabrock, N. D.—John G. Johnson has returned to Aneta, having been forced to resign his position as manager of the Peavey Elevators elevator which he recently assumed, because of ill health.

Van Hook, N. D.—W. D. Johnson recently resigned as manager of the Farmers Union Elvtr. Ass'n elevator and has been succeeded by Gerald Ranum. Mr. and Mrs. Johnson will make their future home on the west coast.

Selfridge, N. D.—W. E. Kurl of McLaughlin, who recently purchased the Farmers Union Elevator, is installing a new feed grinder in the plant. Other improvements are planned to be made in the near future. A new scale recently was installed.

Cando, N. D.—Robert Robertson, for some time employed with Cando Mill & Grain Co., is new manager of the Peavey Elevators elevator, succeeding Gene Martin who is now operating his own elevator at Bisbee, bought in partnership with N. P. Bucher and Mrs. Alice Lindelieu.

Havelock, N. D.—Walter E. Oleson, 35, of Alcester, S. D., was injured seriously in a fall at a local grain elevator recently. He was operating an electric drill from a scaffolding when he fell, fracturing his neck. He was removed to an Emmetsburg, Ia., hospital for treatment.

Langdon, N. D.—The Langdon Farmers Union Elvtr. Ass'n elevator was sold recently to the Farmers Union Grain Terminal Ass'n. Walter L. LaTourette, who has been manager of the St. Anthony & Dakota Elevator here, recently acquired by the Terminal Ass'n, will manage both elevators for the new owner.

Buttville, N. D.—L. D. McLean, manager of the Farmers Elevator, was injured in a fall while going up on a lift to make repairs recently. The rope holding the balance weights broke, causing him to fall 45 ft. to the main floor. He received a deep gash in one leg which required 13 stitches, and severe body bruises. Both hands were badly burned from holding the ropes of the falling lift.

OHIO

London, O.—F. J. Wood & Sons recently installed Calumet Cups in their elevator.

Lewisburg, O.—E. O. Hammel has sold the equipment of his feed mill and the Hammel mill has been closed.

West Unity, O.—Paul Miller has purchased the interest of Herbert Knapp in the Miller & Knapp Feed Mill, effective Sept. 1.

Kileville, O.—Pearl Pettit, 34, local elevator employee, was killed when the bicycle he was riding was struck by an automobile when he was enroute to Plain City Sept. 8.—P. J. P.

Toledo, O.—John A. Forshey, attorney, and formerly traffic commissioner for 10 years, has taken on his old job with the Toledo Board of Trade following the death of Clare B. Tefft recently in an automobile accident.

Dayton, O.—The E. L. Kimmel Feed Store has moved to a new location on West Third St. Mr. Kimmel operates a grain elevator and feed mill in West Manchester and a feed store in Eaton in addition to the local store. Russell Coning is local manager.

Bowling Green, O.—Frank Mattis, formerly of Lewisburg, O., is local representative of Clyde Parks in the mineral feed business. Mr. Parks, who lives at Verona, conducts an elevator, feed mill and feed business at Wenger-lawn (Brookville P. O.).

Sidney, O.—The Ohio Grain, Mill & Feed Dealers Ass'n will hold a meeting here in the Masonic Temple Sept. 29. The meeting will start with dinner at 6:30 p.m. The new soybean and corn crops will be discussed and men will be present to give us all the facts. Make your reservations early.—W. W. Cummings, sec'y.

Columbus, O.—Ohio grain and milling interests, supported by Toledans, entered protest in a recent meeting held at the Deshler-Wallick Hotel against the action of the A.A.A. in ordering Ohio's 1944 wheat acreage held practically at the 1943 level. Ohio's acreage in wheat planting this year amounts to 1,644,000 acres. The increase amounts to only 6,000 acres and represents an increase of only one-third of one per cent.

Lexington, O.—The Berea Milling Co. will move its soybean processing plant here from Berea, O., early in October. Last spring the company purchased a 60,000-bu. elevator and processing plant here and announced at that time it would use the local storage facilities in connection with its processing plant at Berea. A. W. Noah of the Berea Milling Co. recently announced the Berea industry would be moved to the local plant. Equipment here includes a large track scale.

OKLAHOMA

Vici, Okla.—The Farmers Co-op. Ass'n reported a small loss from fire on Sept. 2.

Temple, Okla.—Wade Sparks has succeeded J. E. McDonald as manager of the Farmers Elevator. Mr. McDonald resigned to take a rest.

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Oklahoma City, Okla.—Burglars who entered the office of the Guild Lumber & Feed Co. recently, knocked the knob and hinges from the safe but failed to gain entrance to the strong box. The loot amounted to only \$2, taken from the cash drawer in the desk.

Enid, Okla.—George L. Vaughn, 26, was killed in an accident at the Pillsbury Flour Mills Co. mill Aug. 31, where he was employed. While on the elevator his head caught between the moving elevator and a concrete beam. He was rushed to a local hospital and died a few minutes later.

PACIFIC NORTHWEST

Seattle, Wash.—The Milwaukee Grain Elvtr. Co. has been incorporated for \$100,000. Incorporators are S. C. Armstrong, D. R. Fisher and O. D. Fisher.

Creston, Wash.—The large storage bin for grain which the United Grain Growers were compelled to build has been completed. It will hold 150,000 bus. of grain and is slightly less than four times as large in capacity as the other outside storage bin which was erected last year.—F. K. H.

Tacoma, Wash.—Storage of wheat in Port Tacoma has always been a headache, that is, up until the time when Tacoma was given an equal opportunity with Columbia River points to ship from east of the mountains. Now the Port is planning to increase its bulk storage facilities by adding a number of concrete bins to the present elevator.—F. K. H.

Odessa, Wash.—W. C. Raugust, head of the Odessa Trading Co. which operates four grain stations on the Milwaukee Railway, said his firm's receipt southwest of here would total 1,500,000 bus. of wheat; 450,000 bus. at Batun, 250,000 bus. at Moody, 600,000 at Ruff, and 200,000 at Wheeler. Wheat is piled on the ground adjacent to the elevators, due to car shortage.—F. K. H.

Portland, Ore.—The Archer-Daniels-Midland Co., whose local plant was closed for a short time for repairs, has been granted a priority on expeller types and purchase orders have been placed. When these are installed, the labor situation will be greatly eased. C. E. Bornkamp, local manager, stated the company again is in the market purchasing flaxseed after withdrawing temporarily because of the shortage of labor, when flaxseed kept piling up.

Albany, Ore.—One of the series of fall meetings held by the Oregon Feed & Seed Dealers Ass'n is scheduled for 8 p. m. Sept. 22 at the Albany Hotel for Albany District members. Gordon Ryals, District Governor, will preside. The newly organized Eastern Oregon District, under the guidance of Pete Berg, will hold a dinner meeting at the Pendleton Hotel Sept. 29. The first of the fall meetings was held Sept. 14 at the Forest Hills Golf Course, Corvallis, at which Ervin Peterson, State Director of Agriculture, was the principal speaker. The Eugene District enjoyed a dinner meeting at Seymour's Cafe, Sept. 21. Duane Crabtree is district governor at Eugene.

PENNSYLVANIA

Spring City, Pa.—S. S. Buckwalter recently installed new Calumet Cups in his plant.

Mohnton, Pa.—Fire that destroyed the grist mill owned by George Smith recently, cost the life of Raymond Busser, 56, an employee who had living quarters in the mill. A large quantity of corn and oats was lost. Property loss was placed at \$5,000 with partial insurance.

SOUTH DAKOTA

Dahlberg (Veblen P. O.), S. D.—The Satre Elvtr. Co. elevator's roof was damaged by hail recently.

Menno, S. D.—The Farmers Grain & Stock Co. elevator was struck by lightning on Aug. 17, little damage being done.

Sioux Falls, S. D.—Cliff Sawyer has been transferred here from Emmetsburg, Ia., by the W. M. Bell Co., Milwaukee, Wis.

Timber Lake, S. D.—L. L. Lucian resigned as manager of the Sheldon-Reese Elevator, Hudson, minister of agriculture.—P.J.P.

SOUTHEAST

Mount Airy, N. C.—The Laurel Bluff Mills have been granted a North Carolina charter with a capital of \$100,000, to do a general milling business. Incorporators are: Wilson Barber, H. O. Woltz and G. K. Hale, of Mount Airy.

Atlanta, Ga.—W. P. Woodley, vice-pres. of the Columbian Peanut Co., Norfolk, Va., was elected president of the National Peanut Council, Inc., at the recent annual meeting of the board of directors here. Other officers elected were J. D. Sargeant, Tolar, Tex., manager of the Southwestern Peanut Growers Ass'n, first vice-pres.; B. I. Postwick, Arlington (Ga.) Peanut Co., second vice-pres.; Miss Modane Marchbanks, Atlanta, re-elected executive secretary. The council's program for the coming year was formed and plans for the council's participation in handling the record peanut crop were discussed. More than 5,000,000 acres of peanuts will produce a harvest of an estimated 2,850,000,000 lbs. The entire crop will be purchased by the C.C.C., with millers, crushers and co-operatives acting as agents for the corporation.

TENNESSEE

Goodlettsville, Tenn.—J. W. Reynolds has opened a feed store here.

TEXAS

White Deer, Tex.—The elevator of E. C. Shuman was struck by lightning on Aug. 21, fire that followed totally destroying the structure.

Bovina, Tex.—The Stone Grain & Elvtr. Co., owned and operated by Bob Stone, Clovis, N. M., sold its local elevator to J. P. Macon, of Texico, N. M., last June.

Bishop, Tex.—The Bishop Milling Co.'s large elevator and drier burned to the ground recently. Firemen succeeded in saving the mill. John A. Wuensche, owner, placed the loss at approximately \$50,000. A quantity of grain was destroyed, altho 600 sacks of grain and approximately \$2,000 worth of baled sacks were loaded out of the storage room as the fire raged. The blaze started in the elevator head and was caused by friction. Some damage resulted at the mill from water, but it resumed operation following the fire.

UTAH

Springfield, Utah.—J. E. Robertson has purchased the poultry and livestock feed business operated here by the Globe Mills. He will continue to handle the Globe Mills products.

WISCONSIN

Elkhart Lake, Wis.—Louis Fintelmann, Franklin, Wis., operator of the Franklin Roller Mills, has purchased the Laun Lumber & Furniture Co.'s feed mill and elevator here.

Edgar, Wis.—A. J. Cherney, 76, who for many years operated the flour, feed, hay and grain warehouse business here, died at a Wausau hospital Aug. 18, of a heart ailment.

Waupaca, Wis.—Fred R. Fisher, partner in the Fisher & Fallgatter mill here since 1905, has retired from active business as of Sept. 1. The local mill was taken over by Don Fallgatter, partner in the business since 1938.

Wales, Wis.—Feed Supplies, Inc., Milwaukee, operator of feed warehouses at North Milwaukee, West Allis, Germantown and Saukville, has opened a new feed plant here, to be managed by Gary Schmidt with Tom Davies as assistant.

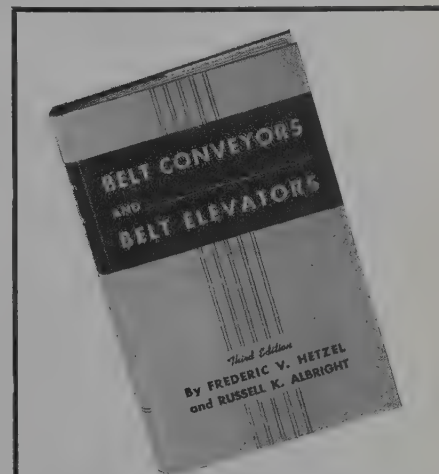
Hilbert, Wis.—The opening of the Hilbert Elevator was celebrated officially Aug. 26 at Vollmer's Hall. The celebration was planned by Krueger Bros. of Forest Junction following their recent purchase of the elevator from Art Birkholtz & Son.

Waupaca, Wis.—Former State Senator Fred R. Fisher was appointed by Governor Goodland as a member of the state grain and warehouse commission to replace Clarence Grace, of Superior, whose term expired last February. Fisher had been in the feed and grain business in Waupaca County since he was 18 years old. Recently he disposed of his interests in the partnership of Fisher & Fallgatter, established in 1905. Fisher's term will expire in February, 1946. Other members of the commission are Edward W. Richardson of Ladysmith, and Peter Skamser of Superior.

Cash and future oats are selling at record-breaking prices to the great advantage of the growers, thanks to the Board of Trade investors and the absence of bureaucratic controls of oats prices.

Trading in the September grain futures ceased after Sept. 22 on the exchanges, under the rule made several years ago, requiring trading to be discontinued several days before the end of the month.

Futures markets were never popular with the Canadian farmer, but the producer should recognize the great service which has been performed, as he is receiving a better wartime price for wheat mainly because of the fact that the futures market is functioning.—Broomhall.



This third edition of "Belt Conveyors and Belt Elevators" by Frederic V. Hetzel and Russell K. Albright is thoroughly revised and in accord with current practices. No other book gives as much authoritative information on this subject.

Designers and builders of grain elevators as well as operators of terminal grain elevators, large flour and feed mills will find this book of inestimable value in the selection and maintenance of elevating and conveying equipment.

Completely indexed, many photographs and drawings; cloth bound; 439 pages; price \$6.00 plus postage.

Grain & Feed Journals
Consolidated

327 S. La Salle St. Chicago 4, Ill.

Farm Animals as Food Processors

By DR. H. H. MITCHELL, University of Illinois

The most important economic function of farm animals is to convert into human food the vast acreage of crops grown in this country that is not directly consumable by man. A good portion of these crops is obviously not suitable for human food because of its bulk. The human digestive tract is quite limited in its ability either to reduce to assimilable form the large proportions of fibrous material in farm roughages, or to liberate from plant cells the nutritive materials enclosed within cellulose walls.

CARBOHYDRATES CONVERTED INTO FATS.—Another important item in the conversion of feed to food is the ability of the improved farm animal to convert carbohydrates to fats. Farm animals consume rations containing 70 to 80 per cent of carbohydrates, including starches and sugars besides the celluloses and hemi-celluloses just considered. They produce animal foods characterized, with the exception of milk, by a negligible content of carbohydrate, but by considerable and at times excessive amounts of fat. The deposition of fat in the body of a fattening steer or pig may amount to 70 per cent or over of the simultaneous gains in body weight.

This fat is largely derived from the carbohydrates of the food by intricate metabolic processes, involving the production of animal heat and the evolution of carbon dioxide gas through the lungs. The improved breeds of pigs exhibit this carbohydrate-to-fat transformation to a remarkable degree. In experiments at Cornell university medical college, Wierzychowski and Ling followed the metabolism of a pig for 20 hours after a meal of starch and milk. In the early hours after feeding, the heat production of the pig was double that of the fasting condition, and even after 20 hours, when most omnivorous animals would have returned to the basal level, the pig was producing heat at a rate 45 per cent above the fasting level. The pig was producing fat from the starch fed at a rate of 5.8 grams hourly, representing a calorie equivalent of two and a half times the fasting (or basal) heat production.

In thus converting feed carbohydrates into the fat of meat, milk and eggs, the farm animal is storing energy in its product in a much smaller bulk than it occupied originally, since 1 gram of fat contains two and a quarter times as much energy as 1 gram of glucose, into which starch is changed on digestion. The animal product thus becomes a more concentrated energy food than the plant material from which it was formed, perhaps better adapted to the human digestive tract.

CONVERSION INTO MEAT.—The production of meat, milk and eggs from plant food involves considerable vitamin as well as energy concentration. The dietitians used to tell us that muscle meat is a poorly balanced food, rich in protein and phosphorus, a good energy food perhaps, if one cared to eat much of the separable fat, but otherwise of not much account. Even the value of the iron it contains in such generous amounts was discounted on the grounds that hemoglobin iron is not utilized in blood formation.

The picture has changed considerably now, thanks largely to the painstaking work of Elvehjem and his associates at the University of Wisconsin. In thiamine content, meats compare favorably with whole grains and are considerably superior to the green leaf. In fact, fresh pork has proven to be a better source of thiamine, on the dry weight basis, than baker's yeast. In riboflavin content, muscle meats are inferior to green feeds but the edible viscera are superior, especially liver and kidney.

Compared with whole grains, even the muscle meats are several times richer in riboflavin. All meat products are relatively rich in nicotinic acid, clearly outranking in this respect both whole grains and green feeds; they are also good sources of pyridoxine and contain appre-

ciable amounts of pantothenic acid. On the basis of these recent results, the conversion of feed to meat has resulted in a marked increase in the concentration of many of the vitamins so that meat can well be considered a protective food rather than a food that needs fortification from other sources.

Even the adverse judgment in regard to the iron of meat needs revision in view of later work, since it has been shown that the heating of meat as in cooking will render its rich content of iron highly available for blood formation. The potency of milk and eggs in vitamin A and riboflavin, at least when they are produced on rations adequately provided with carotene and riboflavin, is another illustration of the ability of the farm animal to concentrate nutrients received from the feed in the food products that it produces.

Must Conserve Grain Doors

All users of grain doors have been requested by the Grain and Grain Products Transportation Conservation Committee to practice economy in grain doors. The Committee in Circular No. 3 states:

There exists an extreme shortage of grain doors which are indispensable in the transportation of Grain in bulk. Investigation by this Committee indicates the urgent necessity for strict economy in their use; otherwise the free movement of Grain will be hampered. We urge upon users the following:

Use only the number of grain doors required to adequately preserve the lading of a car.

The grain door barricade should be applied higher than the grain in the car will level. The number of doors to be used will be dependent upon the capacity of the car and the variety of the grain being loaded. On light loads the joints between the 20-inch doors can be reinforced by placing a 1" x 8" board in a horizontal position overlapping the joint and should be nailed to the door over the joint with 3 eight penny nails, one in each end and one in the center. The practice of doubling grain doors or making the barricade two grain doors thick from top to bottom is unnecessary and should be discontinued.

On heavy loads the joint between the first and second grain door should be reinforced with a 20-inch door nailed to the door above the joint and having an overlap of 10 inches on the lower door. The remaining joints between doors can be reinforced with a 1" x 6" or 1" x 8" board.

Do not fasten grain doors with spikes. The use of large nails or spikes frequently makes it necessary to destroy the doors in unloading (ten or twelve penny nails are ample to make doors secure).

To release grain from cars with reasonable dispatch and prevent damage to the doors, the top door in the barricade should be removed first, then the next door from the top and so on down. The doors should be loosened from both door posts before attempting to pry them upward. The use of crowbars and the jabbing of same into the doors or outside sheathing of cars causes damage to the doors, as well as the car itself. When the lading has been removed from the car by the receiver, economy would result were the receiver to remove the material used in constructing the grain door barricade and notify the railroad to reclaim it.

This matter is vitally important and the cooperation of shippers and receivers of grain is earnestly requested to assist the railroads so that maximum use of existing grain doors may be had.

Soybean solids can be changed into powder in less than one minute by a new "cyclic" dehydrating process invented by William B. Winter of Newton, Mass., research engineer. Products come thru the drier little affected in color or taste.

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A is for Loss of Weight in Transit Claims.

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C—Loss in Quality Due to Delay in Transit.

D—Loss in Market Value Due to Delay in Furnishing Cars.

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These claim blanks are printed on bond paper, well bound in book form, each book containing 100 originals and 100 duplicates, a two-page index, instructions and summary showing claims unpaid, and four sheets of carbon.

The five forms are assembled in three separate books, each of 200 leaves, weight 3 lbs. Price of each book \$2.25, plus postage.

411-A contains 100 sets all Form A.

411-E contains 100 sets all Form E.

411-5 contains 60 sets Form A, 10 Form B, 10 Form C, 10 Form D and 10 Form E.

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Grain Contracts with Farmers

Form 10 D. C. is recognized as the best for contracting grain and seed from farmers, and is in extensive use by grain dealers. Do not take chances with verbal contracts. They lead to misunderstandings, differences and disputes, as well as loss of profits and customers. Contract certifies that farmer:

"has sold.....bushels of.....at..... cents per bushel, to grade No....., to be delivered at.....on or before....." It also certifies that, "if inferior grain is delivered, the market difference at which such grain is selling on day of delivery shall be deducted. Any extension of time at buyer's option."

Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are of manila. All have spaces ruled on the back for recording each load delivered on the contract. Check bound, size 5½x8½ inches, 100 sets numbered in duplicate and supplied with 4 sheets of carbon paper. Order Form 10 DC Improved. Price \$1.10, f. o. b. Chicago. Wt. 1 lb.

Triplicating book is same as 10 DC and contains 100 additional copies of the contract printed on strong tissue and 4 sheets of dual faced carbon. Order Form 10 TC. Price \$1.35, f. o. b. Chicago. Weight, 21 ozs.

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Soybean Research at Peoria

By W. H. Goss, Chemical Engineer, Northern Regional Research Laboratory, before American Soybean Ass'n.

NOREPOL is made from the linoleic acid in soybean oil by carefully controlled polymerization and other chemical processing. A large number of firms have participated in its manufacture for use instead of rubber in such items as rubber heels, jar rings, rubber tubing, gaskets, etc.

NORELAC.—Other useful products can be made by a method similar to that used to produce Norepol. The newest item in this series is Norelac, a resin having remarkable properties, particularly when used in lacquer formulations. It has exceptional water resistance and is thermoplastic. These characteristics make it an excellent moisture-proofing coating for food wrappers, especially in cases where heat sealing is necessary.

In developing new industrial materials derived from soybean oil, the Laboratory looks upon the oil primarily as a source of the five fatty acids: palmitic, stearic, oleic, linoleic, and linolenic. In order to use these in many of the potential outlets under investigation, it is necessary to separate them from each other, for they are present in the oil as a very complex mixture. Their separation and purification is a difficult task, even on a laboratory scale, but a commercially feasible method is a necessity if products like Super-Norepol and many others now being studied are to be manufactured industrially.

SOY FLOUR.—At present, the Laboratory's work on soy flour is devoted to the production of a more efficiently debittered grade of flour by application of the previously described extraction process. Preliminary experiments have been quite successful.

DISCOUNTS AND PREMIUMS assessed in the trade should conform to the monetary value of the product. For example, if an oil refiner must accept inferior oil in place of good oil, he should be allowed to discount it in accordance with both the added expense he must incur in refining it and the lower price he must accept for his finished product if it cannot be sold at the same price as oil from sound beans. No one will dispute his right to pass a fair discount or penalty back to the soybean processor who, incidentally, incurs additional loss because of the increased wear and tear on his plant, the lower yields of oil, the reduction in his mill capacity, and other factors. The processor should be entitled, in turn, to pass certain penalties, such as these higher operating costs and the discount assessed against his oil, back to the producer of the damaged soybeans. The incentive offered the grower to harvest sound soybeans instead of damaged ones should obviously be what it is worth to the processor to

purchase a sound product in preference to damaged soybeans. No one will argue this point, but the question is: "Exactly what are these added values or costs that accrue to the crusher and refiner?"

The Laboratory at Peoria is not concerned with the fixing of discount rates on soybeans or on the oil and meal. This is entirely a function of other agencies. The Laboratory is equipped, however, to assist in scientifically evaluating many of the factors that must be considered in determining fair discounts. One of these required investigation when it was decided that, as a result of last year's experience, a discount for refining loss must be made a part of the oil trading rules. Soybean oil had never previously been traded on a refining loss basis, and hardly anyone had ever bothered to make the test. In fact, the analytical method on the books was based largely upon that used for cottonseed oil, and those who had used it found it unsatisfactory when applied to many of the soybean oils on the market.

REFINING LOSS.—Studies had led to the development of a method for determining refining loss in a centrifuge cup instead of in the conventional refining loss cup, and the new procedure was found to give satisfactory results in all cases where the official method had failed. As a result of this work, the centrifuge method has been adopted as an alternate procedure on solvent extracted oils for the coming year and will assist materially in minimizing the difficulties incident to introducing refining loss settlements into the trading rules.

EFFECT OF DAMAGE ON QUALITY OF OIL.—The Laboratory also conducted tests in one of the large soybean processing plants to determine, quantitatively, the effect of soybean damage upon oil quality and upon other factors contributing to soybean discounts. In this case, the data were obtained for and at the request of Commodity Credit Corporation, but the information has not been published because of the limited nature of the experiments.

Differences between the performances of various types of pressing machinery when crushing damaged beans are so great that it is impossible to obtain a complete and fair picture of the problem without additional tests. In some mills, even tho the damaged beans have a normal content of oil, the presses will not remove the oil efficiently, no matter how much pressure is exerted during the process; and the resulting decrease in oil yield is a most serious item affecting the plant's operating margin. In other mills, using presses of a different type, it is possible to obtain more nearly normal oil yields if the pressure is greatly increased with a consequent decrease in capacity. The capacity decrease in the latter case is far less serious, from an operating cost standpoint, than the oil losses incurred in the former type of mill. The only definite statement that can be made is that a

discount rate that adequately compensates one processor for the added expense of crushing damaged soybeans will very likely be entirely unsatisfactory for his competitor in the next county, simply because of mechanical differences in equipment.

The C.C.C. has suspended sales of wheat for feed pending a check of its supply. The C.C.C. has purchased 3,500,000 bus. of wheat at \$1.02, basis Ft. William, Ont.

Crop Delivery Records

Designed particularly for grain dealers receiving a number of loads of grain from the same farmer, as when an entire crop is marketed by helpful neighbors. Simplifies and expedites recording of each load delivered. Two tickets to a leaf so that loads from two farmers may be separately recorded without turning a leaf. Lines for recording 23 loads on each ticket. Space provided at bottom of each ticket for total net pounds, net bushels, check number, and amount given in settlement. 120 tickets, size 5½x8½ inches. Dupliloating. Originals of goldenrod bond paper, duplicates of manilla. Spiral bound so that book lays absolutely flat, or may be folded back upon itself in open position to facilitate entries. Shipping weight 2 lbs. Order Crop Delivery Record Form 69 Spiral. Price \$1.20, plus postage.

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Printed and numbered in duplicate. Originals on Goldenrod Bond; duplicates on tough pink manila in two colors of ink. Well bound with heavy hinged pressboard covers. 75 originals, 75 duplicates and four sheets of carbon paper. Size 4½x4¾ inches. Weight 11 ozs.

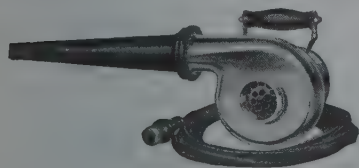
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Field Seeds

Worthington, Minn.—The Worthington Seed Co. has remodeled its warehouse.

Spokane, Wash.—Ralph Dorn has been named as the new office manager of Jacklin Seed Co.—F. K. H.

Kansas City, Mo.—The Western Seeds-men's Ass'n will hold its fall meeting Oct. 8 and 9 at the President Hotel.

Sioux Falls, S. D.—Ben J. Margulies has purchased the Jones Seed Co. building of the Massachusetts Mutual Life Ins. Co.

Conrad, Mont.—F. J. Anderson & Sons have opened their new seed house on the railroad, with equipment for handling and cleaning all kinds of seed.

Humboldt, Neb.—Over 2,700 pounds of certified brome grass seed has been brought into Richardson County by the Soil Conservation Supervisors to improve the quality grown.

Minot, N. D.—Phil W. Starkle, for 12 years with the Oscar H. Will Co. at Bismarck, has been engaged to manage the seed and feed business recently purchased by the Occident Elevator Co. from Roy Aney.

Appleton, Wis.—Simon Schwabenlander, former elevator operator, has rented the seed department of the Liethen Grain Co. and will wholesale seed only. The seed department has not been operating the past year.

Moorhead, Minn.—T. I. Skrei, farmer near Kragnes and G. E. May, Clay County agent, have purchased the Peet Farm Supply Co. of Donald A. Peet, Mr. Skrei taking charge. Seeds, feed and farm machinery are handled.

Sidney, Neb.—A carload of seed wheat for Russia left here Sept. 4, contributed by farm and town citizens. The wheat was of the Cheyenne variety. Two carloads of seed oats had been sent earlier. Several hundred dollars of contributions were left over.—P. J. P.

"Alsike in Canada usually contains a quantity of trefoil which in Canada is condemned as a weed but which assists the export of Canadian alsike to the United Kingdom, where in many localities the trefoil is regarded as advantageous."—Report of Imperial Economic Committee.

Scotts Bluff, Neb.—A disagreement between growers and dealers in beans on the charge for processing has been referred to the state war board at Lincoln. From the government guaranteed floor of \$6.50 per cwt. for Great Northern No. 1 there is to be deducted the processing charge.

On Cecil sandy loan at Chatham, Va., application of 15 lbs. per acre of borax resulted in production of from 82 to 184 lbs. of seed per acre, while alfalfa receiving no borax failed to set seed. Increases in hay yields ranging from 289 to 743 lbs. per acre also were attributed to use of borax, reports the Virginia Experiment Station.

Chicago, Ill.—Leonard H. Vaughan, pres. of Vaughan's Seed Store, died Sept. 11 in his summer home at Onkama, Mich., aged 63 years. The business was founded by his father, J. C. Vaughan, in 1876. He had been pres. of the American Seed Trade Ass'n and the Society of American Florists. He is survived by his widow, six sons and a daughter.

White Fox, Sask.—Walter Atkinson has retired from the seed business.

Des Moines, Ia.—The business of the Iowa Seed Co. has been incorporated under the same name, with John W. Nicolson as pres., Ralph Mygatt, vice pres., and Ardeth Mygatt, sec'y. The company has bought the Peerless Chemical Co., of J. W. Perkins, and Ralph Mygatt is manager of both companies in the quarters of the Peerless Chemical Co. New seed cleaning equipment has been installed.

Waterloo, Neb.—More than 600 dealers and their families attended dealers day of the Robinson Seed Co. Aug. 31. Among the several speakers was Dr. Earl G. Sieveking on "The Value of a National Hybrid Organization." A fine dinner was served at noon, after which they were entertained by the WOW quartet. Former Governor McKelvie spoke on "Agriculture at War." The dealers visited the master test plot west of Waterloo.

Adaptability a Guide in Choosing Seed Oats

A heavy infestation of leaf rust the last two years has brought home the realization that rust can seriously injure our oat crop. Varieties commonly grown, some of which are resistant to stem rust but lacking in resistance to leaf rust, were injured. Included among those injured were early ripening varieties, usually considered early enough to escape damage. Rust appeared earlier than usual and the infection developed and spread rapidly. Fortunately varieties have been developed, and are now available, that can resist both stem and leaf rust. It is expected, therefore, that in the next few years there will be important changes in the variety preference on North Dakota farms.

The oat crop is not only susceptible to injury from rust but is sensitive to unfavorable climatic conditions. High temperatures during the ripening season, or a late drouth may seriously injure an otherwise promising crop. Such conditions will occur with greater frequency in the southern and western parts of the state than in the more northern sections. When this occurs, late ripening varieties usually are injured more than those that head and ripen earlier. Only when one is familiar with the characteristics of the variety he is growing, its relative earliness, disease resistance, capacity to yield, etc., can one wisely choose the variety best suited to his conditions.

TIME OF MATURITY.—Early oats require about 80 days to ripen. This is from 5 to 10 days less than for the commonly grown mid-season varieties. In spite of this short season good early varieties yield surprisingly well. Early oats do not grow so tall, have less straw and usually a smaller, more tapering kernel with a lower percentage of hull than the later varieties. Experimental results show that early varieties will yield more dependably than late varieties in the areas represented by the Fargo and Edgeley experiment stations. Differences at the western stations are less consistent and not so large, but even there the early varieties usually have the advantages in years when late drouth does not permit the later varieties to fill well. At Langdon, in the northern part of the state, ripening temperatures are more moder-

ate and the later varieties have consistently had the advantage over those ripening early.

Considerable progress has been made in the development of varieties that resist rust. Several varieties are now available that can resist stem rust and some that can resist both stem and leaf rust.—North Dakota, Agr. Exp. Sta.

New Alabama Seed Law

The new Alabama seed law that went into effect Aug. 1 has made several changes, among which are:

A germination test date is valid for only 150 days.

Only the information required by law shall be placed on the face of the analysis tag.

Special requirements are set up for hybrid seed corn and certified seed.

A purity analysis is not required for bulk vegetable seed which do not contain over 1 per cent inert, or other crop seed or 0.5 per cent weed seed.

Sorghums consisting of mixed varieties cannot be sold.

False advertising is prohibited.

Non-warranty clauses contradicting the information required under the law are prohibited.

Horse nettle has been added to the list of noxious weeds and the maximum number of noxious weed seed permitted is 200 Primary, 500 Secondary or a total of 600 Primary and Secondary.

Red Top Seed Poorer

The redtop seed crop in Illinois turned out poorer than expected. Fewer acres were harvested, yield per acre was smaller, and loss (21 per cent) in cleaning the seed was larger than expected. The 1943 production (commercial and non-commercial) is now estimated at 11,000,000 pounds of clean seed, compared with 15,800,000 pounds in 1942 and the 5-year (1937-41) average of 18,100,000 pounds. Acreage at 177,000 is 25 per cent below that of 1942 (236,000 acres) and 34 per cent below the 5-year average (269,600 acres). Yield per acre is now reported at 62 pounds of clean seed, compared with 67 pounds in 1942 and the 5-year average of 67.8 pounds.

Movement of the crop this year has been much faster than in 1942 and also faster than the 5-year average. Up to August 16 about 53 percent of the 1943 crop had been sold by growers, compared with 20 per cent last year and the 5-year average of 40 per cent for the same date.

Dealers reporting in the field seed stocks survey had on hand on June 30 a total of 13,476,000 pounds of redtop seed, compared with 13,837,000 pounds in 1942. Stocks on that date in 1941 amounted to 12,312,000 pounds; in 1940 there were 8,154,000 pounds on hand.—U.S.D.A.

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Ceiling to Be Issued on Legume and Grass Seeds

A regulation establishing countrywide maximum prices on legume and grass seeds shortly will be issued by the Office of Price Administration, OPA announced Sept. 15.

This regulation will cover alfalfa (Northern, Central and Southern), medium and mammoth red clover, Alsike clover, sweet clover and timothy seed.

Price ceilings will start at the farmer-producer level with unprocessed seed and provide maximum dollars-and-cents margins for processors, wholesalers and retailers. Within the processor's margin allowances are to be made for dollars-and-cents margins for the independent country assembler and the country cleaner. Dollars-and-cents ceilings also will be provided for producers having processed seed.

Ceiling prices for processed seed will be based on stated quality specifications. Certain premiums will be allowed for state-certified alfalfa seed.

Price ceilings are for maximum quality. For seed of lesser qualities, prices are to be about three per cent less for each decrease of one per cent of purity. For each decrease of five per cent in germination, there will be a reduction of five per cent in prices. This price schedule is in the order and will be explained when disseminated.

All persons owning seed now cannot sell above these prices when the order becomes effective.

Retailers' ceilings for 99% purity and 90% germination are as follows, with growers' ceilings in parentheses:

Alfalfa: Northern (\$35) \$49.90, Central (\$32) \$46.90, Southern (\$28) \$42.90, Red clover (\$30) \$43.50, Alsike clover (\$27) \$40.50, Sweet clover (\$10) \$19, Timothy (\$7.30) \$13.05.

Bromegrass Superior to Bluegrass and Orchard Grass

Yields and general performance of smooth bromegrass have been studied during a period of ten years by the Illinois Station. Tests were made at Urbana in eastern Illinois, at Alhambra in southwestern Illinois, and at Dixon Springs in the extreme southern part of the state. Field observations were also made on a number of farms in central Illinois.

These tests and observations show that bromegrass is outstanding in hardiness, resistance to drought and heat, palatability, and nutritiousness. It also yields well and has a high degree of persistency as a pasture plant.

The excellent qualities of bromegrass are enhanced by seeding it in a mixture with alfalfa; but seeded either alone or in a mixture it produces good gains on cattle and sheep.

Bromegrass requires fertile soil and yields best where it is seeded with a legume or where barnyard manure is plowed down previous to seeding. On soils of relatively low fertility it has not been productive.

The pasture season can be lengthened as much as four to six weeks by using a mixture consisting mainly of bromegrass. Good management will carry a good growth thru the entire season from May to mid-October.

Yields of forage from bromegrass have been consistently high; and chemical analyses, as well as animal gains, show that it is nutritious. A mixture of bromegrass and alfalfa nearly equals alfalfa in protein and mineral content.

Tests comparing bromegrass, Kentucky bluegrass, and orchard grass show that bromegrass produces the most forage, makes possible the largest livestock gains, and provides for the longest period of grazing, doing away with some of the need for supplementary pastures or summer feeding.—Bull. 496, Illinois Agr. Exp. Sta.

Scab in Indiana Seed Wheat

Scab disease has spread over the entire state of Indiana this year, infesting nearly all home grown wheat seed, declares Dr. C. T. Gregory, Purdue University extension plant pathologist. Since most Hoosier farmers must depend on their own seed wheat for fall planting, they are advised to clean and treat it to insure a good stand, as scab infested wheat germinates poorly.

To help farmers improve wheat seed germination and insure a better stand of wheat, Dr. Gregory offers the following recommendations.

Clean the seed wheat thoroughly to remove all the badly shriveled grains.

Treat this cleaned seed with Ceresan, which may be obtained at many stores. Use one-half ounce per bushel if the wheat is to be planted immediately. However, if the wheat may be left in the sacks for two weeks before planting, one-fourth ounce per bushel will be sufficient.

The Flour Mills of Canada

The 285 flour mills, in the Dominion, many of them of the most modern type and highest efficiency, have a capacity far in excess of Canada's demands. During 1928, productive capacity reached about 121,000 barrels per day. Since then, the industry was adversely affected by the difficulties which beset the Canadian grain trade and the great decline in the prices of grains. Exports of wheat flour declined from 10,737,266 barrels in 1928 to 3,911,886 barrels in 1938, but, in spite of this decrease, Canada continued to be one of the leading exporters of wheat flour.

A further impetus was given the industry as a direct result of the large import requirements of Great Britain during the present war. Exports of wheat flour jumped accordingly over 3,000,000 barrels, from 3,911,886 in 1938 to 6,970,902 in 1940.

A review of the flour and feed milling industries during the year 1941 shows an increase of 102 in the number of mills reporting, with a marked increase in all of the other items comprising the principal statistics.

The production of flour, amounting to 20,869,321 barrels, represents an increase of 3,453,092 barrels or almost 20 per cent. There were also increases of 121,772 tons of chopped feed, and 75,164 tons of bran, shorts and middlings. The output of oatmeal and rolled oats, however, remained the same.

Wage Increases for Small Companies

The War Labor Board has granted employers of 30 or fewer employees the privilege of making limited wage and salary increases without the board's approval, subject to the following conditions:

That the increase to any individual shall not exceed 10 cents per straight time hour and the total increase to all employees does not exceed an average of 5 cents per straight time hour for all employees in the establishment.

That the increase is not made the basis for an application to the board for increases to eliminate intra-plant inequities.

(c) That the increase does not result in a rate for the job that exceeds the highest rate paid by the employer between July 1, 1942 and June 30, 1943, for jobs of similar skill and responsibility.

That the increase does not appreciably increase production costs or lead to an application for an increase in the company's ceiling prices.

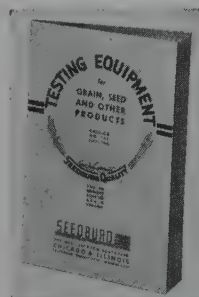
That the increase is not contrary to any of the terms of a collective bargaining agreement.

Probably not very many small plants will be able to adjust their wages under this new regulation because of the limitation of item (c). However, the new regulation is worth looking into in those cases where small plants are having difficulty in keeping their employees satisfied.

Ft. Worth, Tex.—The Texas Seedsmen Ass'n will hold its war conference Nov. 17 and 18 at the Texas Hotel.

Council Bluffs, Ia.—Dwarfies Corporation has agreed with the Federal Trade Commission to cease false statements that its "Dwarfies Wheatmix," due to its iron or copper content, makes red blood or is a blood builder, that it benefits the nervous system and improves the appetite.

Gordon, Neb.—Ross Magowan, elevator operator, states that 50 per cent of the spring wheat received this year is contaminated with stinking smut or bunt. As many as 10 per cent of the wheat samples in the 100 farmer test plots in central and western Nebraska this year contained smut.



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Grain Carriers

The Burlington has applied for authority to abandon 6.43 miles of branch line from Englewood to Trojan, S. D.

Colonel Johnson of the Interstate Commerce Commission has issued a plea to all railroads and shippers thruout the nation to maintain their present maximum effort to accomplish quick turn-about of cars.

Chicago, Ill.—The Midwest Shippers Advisory Board will hold its meeting Oct. 7 at the Palmer House. The reduced fare convention certificates will enable the purchase of tickets reading via any route going or returning.

Lincoln, Neb.—Walter S. Whitten, manager of the Lincoln Traffic Bureau, has urged the state railway commission to oppose the 14 bills and joint resolutions in Congress to set freight rates, the effect of which would be to raise the rates on grain and livestock.—P. J. P.

Chicago, Ill.—The hearing on I. & S. Docket 4718 has been postponed by the Interstate Commerce Commission to Nov. 16, at the Morrison Hotel. Examiner Fuller will preside. The proportional rate on ex-barge grain from the Illinois waterway to official railroad territory is involved.

Railroads had on order Sept. 1 5,551 plain box cars and 1,038 locomotives. Class I railroads put 15,744 new freight cars in service in the first eight months of 1943, compared with 53,695 in the like period last year. Those installed in the eight months of 1943 included 688 plain box cars.

Marion, O., has been detached from the Fostoria area and designated by the Interstate Commerce Commission as a separate market area for the issuance of permits to move grain. Max A. Fuelber, traffic manager of the Old Fort Mills, is the Commission's agent for issuance of permits.

Nothing worse could happen to the industries of the south and west than the adoption of legislative rate-making resulting in the establishment of all rates on a uniform mileage basis throughout the country. And yet that, in effect, is exactly what the southern governors are seeking.—*Railway Age*.

Increased rates and charges on grain to St. Louis and East St. Louis under suspension to Dec. 31, will become effective Jan. 1, from points in Kansas via such points as Burrton, Cherryvale, Arkansas City, Independence, Chanute and Coffeyville, as provided in Supp. 25 to tariff 14714 of the A., T. & S. F.

"The recent achievements of the railways have proved the ignorance or malice of those who recently called them 'decadent'. They were suffering before the war from both unfair, government-aided competition and the depression. If the government gives them a fair break with their competitors, and general business is good, they will do relatively as well for the nation and for themselves after the war as they are doing during the war."—Samuel O. Dunn, editor of *Railway Age*.

The Santa Fe in Supp. 25 to 14714-D provides that "Only one stop for transit privilege is permitted in connection with shipments moving under rates in item giving specific reference hereto, except that shipments which have been stored in transit will be accorded an additional transit privilege. The outbound shipment from the transit station must be made not later than May 31, 1944. On shipments originating prior to Oct. 1, 1943, the time limit for outbound shipment from the transit station is extended from Oct. 1, 1943, to not later than May 31, 1944." No change is made in the charges.

Four package freighters that were requisitioned by the government in 1942 for war service, have been turned back to the Great Lakes Transit Corporation and are now in process of reconditioning for movement of grain down lakes, early next month. This will put more tonnage for use in moving grain, than is now available under allotted quota.—F. G. C.

Grain and grain products loading during the week ending Sept. 11 totaled 47,768 cars, a decrease of 6,509 cars below the preceding week, but an increase of 2,372 cars above the corresponding week in 1942. In the western districts alone, grain and grain products loading for the week of Sept. 11, totaled 34,482 cars, a decrease of 4,236 cars below the preceding week but an increase of 1,336 cars above the corresponding week in 1942, as reported by the Ass'n of American Railroads.

Admiral Land recently called for the establishment of a modern post-war fleet of 15 million to 20 million d.w. tons, privately owned and operated, and to be assured of a liberal percentage of this country's overseas traffic. He would also like to see the expansion of American flag operations to include tramp shipping and services between foreign countries. Meanwhile steps have been taken, by shifting a part of the construction program from Liberty ships to the newly designed Victory ships, to provide our merchant marine with vessels that will be not only more effective in war service, but better fitted to meet post-war needs.

Washington, D. C.—Sales of idle or frozen industrial materials to warehousemen, jobbers, and distributors now must be made under the provisions of Revised Maximum Price Regulation No. 204 (Special Sales of Industrial Materials), the Office of Price Administration announced Sept. 20. Sales by producers of idle industrial materials or those frozen in inventory by War Production Board orders always have been exempt from the regulation. On Aug. 19 the exemption was extended to warehousemen, jobbers and distributors. Experience since Aug. 19, however, has shown that exempting of sales to warehousemen, jobbers and distributors has slowed movement of idle and frozen materials, such as iron and steel, copper and other products into the hands of users. Sales to warehousemen, jobbers and distributors are again placed under the coverage of the regulation in Amendment No. 1, which becomes effective Sept. 24.

Promotion Practices of Eastern Feed Dealers

By EUGENE A. CONKLIN

Feed dealers in Rochester, N. Y., area are holding Victory Parties patterned after the Four Freedom Shows. At these shows every farmer buys a 25c defense stamp to a \$50.00 war bond. In return farmer gets a three hour show consisting of demonstrations of Civilian Defense Activities. Whole object of the parties is to sell war bonds and to impress upon farmers their importance in the war.

Another promotion is the cash offer of two dollars weekly for the best and most legitimate complaint offered by a customer. Complaint may have to do with any phase of the feed dealers service, the more constructive the complaint the better for all concerned. Feed dealer in this way ascertains when he's falling down. Farm customers don't miss a chance if they do have any grievances.

One feed dealer is sending his exemployees who are in the service or will be shortly five dollars weekly. Off hand that seems like a huge drain but it brings them back into the fold after the war and it shows the dealer's patriotism.

One feed dealer is sending all his customers letters with this theme: "When you need a character or business reference use us. If you open a charge account or need an extra reference we're happy to serve". At first glimpse this would seem to give feed dealers a new batch of headaches. Actually it keeps all his customers paying their bills punctually so as to keep their credit clean in case they should want to use dealer as a reference.

Women drivers are being used by many feed dealers to handle feed deliveries. This releases any male drivers as yet unsought by the draft for duty in the mill proper. The women drivers are housewives whose hubby is in the Army and who want to earn a little pocket change driving for feed dealers a few hours daily. Women can handle deliveries of even huge feed orders, as farmers invariably have one of their men unload. Women drivers are mighty efficient as collectors, they aren't taken by any farmers ideas of obtaining credit unless authorized in advance by the feed retailer.



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Supply Trade

Steinlite Moisture Testers were recently purchased by the following Indiana companies: Finch-Moore Grain Co., Hillsboro; Bushrod Grain Co., Bushrod; Hobbs Grain Co., Hobbs; Manilla Grain Co., Manilla; McDonald & Co., New Albany; Enos Grain Co., Enos; Roseburg Grain Co., Roseburg; Chesterfield Grain Co., Chesterfield; Ockley Grain Co., Ockley.

Milwaukee, Wis.—The Falk Corporation, manufacturers of herringbone and single helical gears, mill, marine and special drives, speed reducers and flexible couplings, announces the appointment of Charles A. Petri to the position of advertising manager. He replaces Ralph H. Deihl, director of Falk advertising activities since 1940, who has joined the Army Air Force.

A comprehensive program for redistribution to essential uses of upwards of an estimated billion dollars worth of used or idle machinery and equipment, much of it now owned by the Government, was announced Sept. 16 by the War Production Board. A comprehensive set of questions and answers concerning the program has been prepared by the Redistribution Division for use by the Regional Offices, to which all inquiries should be addressed.

Washington, D. C.—An overall cordage and cordage fiber conservation campaign to consolidate programs initiated by various companies is now being developed. It is expected that this general campaign will be financed by industry, but it will have the backing and co-operation of the Conservation Division of the War Production Board. Edwin G. Roos of the Plymouth Cordage Co., North Plymouth, Mass., has been appointed by the War Advertising Council to prepare the campaign. Cordage and cordage fibers are among the nation's most critical materials, and with the majority of the supply going into direct war use it will be necessary for industry to cut to the very minimum. Plans are being worked out with the Army, Navy and Maritime service for similar conservation plans.

Preference Ratings for MRO Adjusted

Preference ratings assigned for maintenance, repair and operating supplies, under CMP Regulation No. 5, have been adjusted to a new pattern of relative industrial urgency, recently established by the Requirements Committee, the War Production Board has announced.

At the same time, Schedules I and II of the Regulation, which indicate the ratings assigned to producers of particular products and to particular industries, have been modified to reflect the existence of specific MRO preference rating orders which are applicable to specific industries.

Changes in ratings are indicated in Schedules I and II of the Regulation, as amended Sept. 13, 1943.

At the same time, Direction No. 12, to CMP Regulation No. 5, indicates that orders placed for MRO items prior to Aug. 16, 1943, for delivery in the third and fourth quarters, need not be down-rated in the case of producers of products or businesses which have been moved from Schedule I to Schedule II by the Sept. 13 amendment to CMP Regulation No. 5.—WPB4226.

If a secondary consumer of controlled materials is required by the terms of CMP Regulation No. 1 to return an allotment of controlled materials to the person from whom he received it, and it is impracticable for him to do so, he may make the return to the Claimant Agency whose symbol appears on the allotment, or to the War Production Board if the allotment bears one of the WPB symbols. This is specifically provided for in Direction No. 26

to CMP Regulation No. 1, announced by the War Production Board.—WPB4225.

In cases where controlled material is lost or stolen in transit, it must be replaced by the person with whom the order for it was placed, without requiring a new allotment, the War Production Board has announced.—WPB4222.

New Fertilizer Ceiling

All bulk sales of process tankage and sewage sludge, and sales of bagged castor pomace and castor cake by producers and jobbers were brought under the provisions of a new regulation, Maximum Price Regulation No. 470 (Process Tankage, Sewage Sludge, Castor Pomace and Castor Cake). Effective Sept. 23, 1943, specific ceiling prices per unit of ammonia, i.o.b. producing point, are set for domestic materials.

Previous to issuance Sept. 18 of MPR 470, the prices of these nitrogenous materials had been regulated by the General Maximum Price Regulation on the basis of each seller's highest price charged during March, 1942. This action lowered the prices of some and raised the prices of a few—the general effect being to restore the normal relationship between various materials at their different points of production.

For process tankage in bulk the price per unit of ammonia is \$3.50 at Norfolk, Va., \$3.20 at Carrollville, Wis., and Endicott, N. Y., and \$3.15 at Carteret, N. J., and Chemical, Ill.

To Obtain Controlled Materials

Manufacturers of Class A products have the right to ask for allotments from their customers for the quarter in which the allotments are needed to obtain delivery of controlled materials, the War Production Board has ruled in issuing Direction No. 27 to CMP Regulation No. 1.

If the manufacturer is asking for an allotment to replace inventory of controlled materials which he will use in the manufacture of the Class A product, he may ask for it in the quarter for which the order is placed or for any of the next three quarters. Manufacturers do not have to accept orders for such products, unless their requests for allotments, within the specified time limits, are complied with.

Manufacturers, however, must not ask for allotments for quarters in which they cannot accept delivery of controlled materials because of inventory limitations.

Interpretation No. 11 to CMP Regulation No. 1 indicates that a manufacturer of Class A products must fill orders out of excess stocks if the size of his inventory prohibits acceptance of delivery of controlled materials. Nevertheless a manufacturer may insist on an allotment before accepting an order for a Class A product, if the quarter for which he is seeking the allotment is within the time limit permitted by Direction No. 27.

Order L-292 to Be Amended

WPB Officials have indicated that a series of amendments will be issued shortly. The first will cover production of dairy machinery, which will be stepped up to levels of from 80 to 125% of the base production period.

Later action will set new levels for baking, canning and packing machinery products. Grain and milling machinery action will follow. This plan is being worked out by the WFA, and should correct the original Order requiring machinery manufacturers to curtail their production by 50% of previous years.—W. W. Cummings, Sec'y Ohio Grain & Feed Dealers Ass'n.

Purchase of Burlap Bags Easier

The War Food Administration calls attention to a recent WPB action removing users' quota restrictions on the purchase of new burlap bags for packaging all agricultural products, except fertilizer, sugar and tankage, for the remainder of 1943. This action was taken through an amendment to WPB conservation order M-221, which in the past has restricted purchases of such bags to specified percentages of 1941 purchases.

This measure has been taken to facilitate the distribution of essential agricultural bags, and should not be interpreted to mean that the supply of bagging materials is no longer critical.

Slight Increase in Machinery Quota

Beginning Oct. 1 manufacturers of grain handling and milling machinery will have their quota increased to 75 per cent of what they made in 1939, 1940 and 1941 under an amendment soon to be issued to L-292.

Baking machinery quota of 94 per cent is more in line with the increased demand; and the manufacturers of mill machinery need a larger quota to satisfy the requirement of flour and grain millers, who are turning out much more flour than during the base years.

Canners are given 116 per cent, and fishery processors 117 per cent.

In Ohio the state has 25,000 employees and the federal government 90,000; the state has 21,000 in Massachusetts and the federal government 129,000; and in Wyoming the state employs 1,100 and the federal government 6,200, according to Senator Byrd.

To give western Canada farmers the benefit of the tax assessed on exports of barley and oats to the United States payments will be made of 15c on barley and 10c on oats per bushel in addition to the market price, on delivery. The fixed price on flaxseed has been raised 25c to \$2.50 per bushel, basis Ft. William. Domestic ceiling prices remain at 51.5c for oats and 64.5c for barley, per bushel.

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Feedstuffs

Ottawa, Ont.—Millfeed production in Canada during the crop year ending Aug. 1, 1943, amounted to 788,229 tons, against 675,550 tons during the preceding crop year.

New York, N. Y.—A cargo of cottonseed oil meal from Brazil has arrived and is being distributed by five importing firms. Ship space was granted by the Feed Distribution Administration.

The Mineral Feed Manufacturers Ass'n will not hold its usual annual meeting this fall, a mail vote indicating that 98 per cent of the members were in favor of canceling the meeting.

Pittsburgh, Pa.—Dr. Fred Lorenz of the University of California, told the American Chemical Society that the meat of roosters can be made more tender by placing under the skin the female sex hormone estrogen.

San Francisco, Cal.—Dairies are short of hay while hay is still in the fields and cannot be moved for lack of trucks. This situation was explained to the senate military affairs subcommittee by E. K. Kyte of the California Hay, Grain & Feed Dealers Ass'n.

Feed merchants in the east are urged by Austin W. Carpenter, executive director of the Eastern Federation of Feed Merchants, to persuade dairymen and poultrymen to buy and store on their farms good supplies of government feed wheat and Canadian barley and oats.

Portland, Ore.—The feed mixers now are reaping the benefits of the work done months ago by the Oregon Feed & Seed Dealers Ass'n in collecting data and naming a committee to allocate feed. The plan was approved by the F.D.A. at Washington, and the committee now is dividing up the receipts of soybean oil meal equitably.

Analyses on 51 commercial alfalfa preparations used in animal feeds are reported by the Massachusetts Agr. Exp. Sta. One sample of alfalfa stem meal contained only 5 parts per million of carotene while the highest value for alfalfa leaf meal was 223 p. p. m. Alfalfa products should carry at least 50,000 I. U. of vitamin A per lb. (approximately 660 p. p. m. carotene) when introduced into a feed.

Washington, D. C.—The controversy over the description of meat products in dog feed has been cleared up by the Ass'n of American Feed Control Officials, Sec'y L. E. Popst stating that: "The Feed Control Officials did not want to see '... per cent protein Meat Meal' used as an ingredient in dog feeds. Once the meat meal became intermingled with other ingredients no one could tell whether 50 or 55 per cent protein was being used. A letter from Director Morehouse of the Federal Trade Commission clears this objection and permits merely 'Meat Meal' to be stated, with no protein declaration necessary."

Des Moines, Ia.—The Iowa State Department of Agriculture calls attention to Sec. 3039 of the Iowa Code which provides: "Articles which are mixtures, compounds, combinations, blends, or imitations shall be marked as such and immediately followed, without any intervening matter and in the same size and style of type, by the names of all ingredients contained therein, beginning with the one present in the largest proportion." "It is not the desire of the department to be too particular at a time like this, however, present conditions also create a situation wherein it has been found necessary to make a general application of section 3039 in order to avoid unfair practices which not only affect the public but the trade in general."

Winchester, Ind.—Feed business is still excellent, demand for feed growing day by day. —Goodrich Bros. Co.

Chicago, Ill.—The Livestock and Meat Council Sept. 18 declared that "removal of further quantities of meat from the diet would tend seriously to affect the confidence and enthusiasm of a large part of the population. A more realistic method of approaching any feed shortage would be to increase production."

Higginsville, Mo.—As a whole, there is not enough feed to carry the stock thru to the finishing stages or thru the winter as must be done in some cases and with some stock, this is especially true with dairy cattle. Some dairies are selling out as they are disgusted with the help problem.—A. H. Meinershagen, sec'y, Missouri Grain, Feed & Millers Ass'n.

Decatur, Ill.—The enormous amount of wheat that is being fed, due to lack of corn supplies, is making heavy inroads on surplus stocks, and from all indications this season will see the elimination of excess surpluses of grain in the United States. Therefore, every effort will have to be concentrated toward a large production of grain next year.—Baldwin Elevator Co.

Paralysis from Feeding Herring

T. L. Jones in the Canadian Journal of Medical and Veterinary Science reports on an outbreak of Chastek paralysis which began 44 days after Pacific coast herring (*Glupea pallasii*) had been added to the daily ration. This species of fish is an addition to the list of those possessing a thiamin-inactivating factor: "More than half the foxes on the ranch showed an impaired appetite before the outbreak was controlled."

"Five foxes died and 10 were killed in extremis. Over 80 showed nervous symptoms and recovered, but none survived that became paralyzed. A thiamin-rich ration brought the outbreak under control, and within a month the breeding season had begun. The rancher reported that a satisfactory breeding season was experienced and that the outbreak did not appear to have any untoward effect on the potency of his breeding foxes."

Ceiling on Imported Tankage Changed

To eliminate a squeeze on processors of animal product feedingstuffs who contracted for importation of dry rendered tankage between May 15, 1943, and July 12, 1943, the Office of Price Administration Sept. 15 authorized these processors to establish their maximum prices under the original regulation covering the feedingstuffs rather than under the revised regulation issued July 13.

Changes in the allowed transportation costs would have made it impossible for the processors to sell the feedingstuffs processed from the imported dry rendered tankage without taking a loss if they had been forced to operate under Revised Maximum Price Regulation No. 74 (Animal Product Feedingstuffs). Amendment No. 2 to this revised regulation, effective Sept. 14, allows them to price under the provisions of the original Maximum Price Regulation No. 74.

This authorization applies only to processors who contracted between May 15, 1943, and July 12, 1943, for the importation of the dry rendered tankage and who did not have the imported material allocated to them by War Food Administration.

Plant Protein Concentrates for Pigs

By W. L. ROBISON,
Ohio Experiment Station

The scarcity of high-protein feeds, particularly those of animal origin, makes data on the worth of different concentrates used as the sole high-protein feed and used in various combinations in rations for pigs of interest. Since, in swine feeding in the corn belt area, soybean oil meal is used to a greater extent than other plant protein concentrates, it is probably of greatest interest.

SOYBEAN OIL MEAL.—A summary of 12 comparisons of soybean oil meal and tankage fed with corn and minerals to pigs in dry lot is given. In 2 of the 12 comparisons ground alfalfa was included in the rations. The pigs were carried from approximately 55 to 200 pounds in weight. Soybean oil meal produced gains practically as efficiently, but hardly as rapidly, as tankage. The pigs fed tankage were ready for market 7 days earlier on the average than those fed soybean oil meal.

In later dry lot experiments, ground alfalfa was included in the ration each time, and a mixture of tankage and linseed meal was used as the standard with which other high-protein feeds or mixtures were compared.

The pigs fed the soybean oil meal were ready for market 12 days later, on the average, than were those fed the mixture of tankage and linseed meal. They made more efficient gains. At the prices used, their gains were also less costly. A larger percentage of the pigs fed soybean oil meal became unthrifty and were removed from the experimental lots during the course of the experiments. Because more of the pigs have become unthrifty, feeding soybean oil meal as the only protein concentrate to growing and fattening pigs in dry lot under usual conditions has not been encouraged.

In 1942, an experiment was conducted in which a toasted extracted soybean oil meal and some expeller soybean oil meals, made under different conditions of manufacture, were used. The meals were made from the same supply of beans. In order to bring out more clearly any differences in the nutritive values of the meals, the pigs were started on the various rations at an early age. They were 7 to 10 weeks old and averaged 38 pounds in weight when the experiment began. The pigs were confined indoors. The rations consisted of ground yellow corn, soybean oil meal, ground alfalfa, and minerals.

The approximate mineral content, including that in the feeds and that added, ranged from 4.3 to 4.6 per cent. Sufficient soybean oil was added to those lower in fat to bring the fat content of each ration up to approximately 3.8 per cent. Ground alfalfa made up 5, and added minerals, 2 per cent of the rations. After the first 8 weeks, irradiated yeast at the rate of 0.01 pound to 100 pounds of feed was mixed with the rations to supply vitamin D. The rations were obviously deficient in some respect. Instead of the rapidity of the gains continuing to increase until a weight of 200 pounds was reached, as is typical, that of five groups receiving soybean oil meal as the only protein concentrate slowed down before the experiment was concluded. The pigs fattened rather than grew. They also became wrinkly and rough in the skin. Several had a wheezy respiration.

Two groups of similar pigs similarly fed except that they received $\frac{1}{2}$ and 1 pound of tankage for each pound of expeller soybean oil meal, respectively, and that the soybean oil meal fed them was commercial meal purchased from a local dealer, gained rather slowly at first but more rapidly later and otherwise developed normally. A failure of pigs fed soybean oil meal to grow and develop normally had not been encountered in previous experiments, but in them, pigs that were a little older and heavier at the start were used.

Cacao Products Poisonous to Stock

F. Blakemore and G. D. Shearer report that cacao husks and meal may have a toxic effect on animals when fed in quantity. Horses, swine, and poultry appear to be particularly susceptible. The toxic effects of cacao shells or meal are due to the presence of theobromine. However, these products do not seem very acceptable to animals and are not taken very well when first mixed with the food.

Since theobromine is present in varying amounts in cacao products depending on previous treatment, etc., it is suggested that neither cacao husks nor meal be fed to farm animals without previous analysis and in any case should not be given in quantity.

Outlook for Feed Supplies

Based on the present outlook for feed supplies, it is estimated that about 134 million tons of feed concentrates will be available for feeding in the year beginning October 1943. This would be 10 million tons smaller than the quantity fed in 1942-43, but 34 millions tons larger than the 1937-41 average. This estimate includes an allowance for imports of oats, barley, and feed wheat from Canada and feed from reserve stocks of domestic grain that will be fed next year in addition to grain fed from the 1943 domestic crops, and excludes grains and oilmeal used for purposes other than livestock feed. Corn stocks probably will be reduced to about 150 million bushels by October 1, 1944, and there will be similar reductions in oats and barley stocks.

Feed disappearance increased more than livestock production from the average for 1937-41 to 1942-43. The quantity of feed consumed per unit of livestock production was 8 per cent larger than average in 1942-43 and 6 per cent above that of 1941-42. Considering the over-all livestock feed situation, if the rate of feeding

should be reduced to the average of 1941-42 and 1942-43, total livestock production may be only 3 or 4 per cent smaller in 1943-44 than in 1942-43, with the smaller quantity of feed available for feeding.—U. S. D. A.

Indiana Nutrition School

Sept. 30 and Oct. 1 Purdue University will hold the 4th annual Nutrition School in the Memorial Union Building at West Lafayette, Ind.

The course has been prepared with the cooperation of the Indiana Grain & Feed Dealers Ass'n, American Feed Manufacturers Ass'n and the Indiana Feed Conservation Council.

The program includes "Tips on Stretching the Feed Supply," by Harry Truax; "Essential War-Time Shifts in Poultry Rations," by C. W. Carrick; "Livestock Industry Meets the Challenge," by Dean H. J. Reed; "Feed Efficiency and the Feed to Food Program," by Dr. W. P. Garrigus, University of Kentucky; "Efficient Feeding Practices," by C. M. Vestal, J. H. Hilton, Claude Harper, F. G. King, L. A. Wilhelm; "Maximum Utilization of Our Available Feeds," by Dean E. C. Young; "Essential Vitamins in Livestock Feeding," by Dr. Garrigus; "Probable Vitamin Deficiencies in 1944," by F. W. Quackenbush; "The Feed Emergency," by Russel Bailey; "Round Table on Emergency Problems," led by Fred Sale, sec'y Indiana Grain & Feed Dealers Ass'n.

The Thursday morning session will be a joint meeting with the State Poultry Ass'n.

A registration fee of \$2 will be charged to partially defray the expenses of conducting the school and to make available copies of the addresses.

For selling corn above the ceiling price, C. L. Johnson, doing business as the Wells-Hamilton Grain Co., Ewart, Ia., was fined \$621.85, and Paul Peterson, Montezuma, Ia., was fined \$307.38.

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Poultry Feeds and Feeding

Washington, D. C.—The O.P.A. on Sept. 18 eliminated grit and crushed granite for chickens from all price control.

Under the National Poultry Improvement Plan the 2,712 co-operating hatcheries produced nearly one-half billion chicks of pullorum tested or higher quality during the season now closing, breaking all previous records. The test means that both male and female birds were selected for constitutional vigor and production qualities by a state inspector or agent.

Madison, Wis.—The University of Wisconsin has received from the Borden Co. a renewal of the grant of \$12,000 for an industrial fellowship in the departments of poultry husbandry and biochemistry. The fellowship will be used to continue a study of the vitamin, mineral, and protein elements in milk for three years under the supervision of Profs. J. G. Halpin, W. W. Cravens and E. B. Hart.

Chicago, Ill.—Clifford D. Carpenter presided at the meeting Sept. 10 called by the National Poultry Advisory Council to combat poultry mortality. He urged a wider distribution of the Council's booklets dealing with poultry mortality. The poster contest was explained by Miss Mary Clarke. One of the four judges to select the best poster is E. P. MacNicol of the American Feed Manufacturers Ass'n.

Use Adequate Amounts of Vitamins

By WHITE LABORATORIES, INC.

Some manufacturers do not use proper amounts of vitamin oils in their feeds. Others use only sufficient to protect against deficiencies, thereby failing to obtain maximum benefits. The vitamin A and D requirements of chickens and turkeys have been carefully determined, and good feeds should always supply at least the minimum recommended amounts.

Allowances should also be made for the fact that farmers often feed more scratch grain than is recommended, particularly if they have plenty at home. Also, due consideration should be given to the possibility of some loss in vitamin content in feeds during storage.

The vitamin A and D requirements are 100 per cent higher for laying hens than for growing chicks. The hen transfers a large amount of these nutrients to her eggs. The amount of vitamin A and D in her feed determines largely the potency of the egg in these factors. The requirements for breeding are approximately 50 per cent higher than for average egg production.

The following table shows the vitamin A and D requirements of different classes of chickens and turkeys. The amounts are given on the basis of TOTAL RATION; therefore mash, generally fed with scratch grain, should be fortified at a sufficiently high level to compensate for the lower vitamin A and D intake provided in the grain portion of the ration.

	Required Per Lb. Vitamin A*	Total Ration Vitamin D*
Growing chicks.....	1,450 Units	180 Units
Laying hens.....	3,150 "	360 "
Breeding hens.....	4,720 "	540 "
Growing poults.....	3,630 "	360 "
Breeding turkeys.....	4,720 "	540 "

*Vitamin A is expressed in U.S.P. units and Vitamin D in A.O.A.C. units.

All of the vitamin D required is supplied by the vitamin oil or other vitamin D supplement. The vitamin A is provided both as carotene and "true" vitamin A. The former is supplied in mixed feeds principally by such ingredients as yellow corn, corn gluten meal and alfalfa meal. The true form of vitamin A, which requires no conversion in order to be assimilated in the animal body, is supplied only by vitamin oils.

The Science of Poultry Nutrition

Laying mash and concentrate laying mash reflect the science of poultry nutrition. Representing, as they do, only part of the total ration of laying hens (except the all-mash type) the science they embody can, therefore, be largely nullified if these feeds are not skillfully used and, as a consequence, efficient utilization of the entire ration be adversely affected.

To effect the greatest possible conservation of scarce feeds, thru the science of poultry nutrition requires, therefore, close cooperation between the feed maker and the egg producer. The feed manufacturer must maintain quality and uniformity to the very limit of his ability. On the other hand the feeder must, through skill and experience, make every pound of laying mash or concentrate laying mash return a maximum in essential food nutrients. Variable conditions, climatic and otherwise, preclude the exact blue printing of feeding methods to be pursued in attaining this end.

The individual egg producer, of experience, must call upon his knowledge, skill and ingenuity to turn in the best possible job. He must, especially, guard against wastage of protein, through excessive use of laying mash or concentrate laying mash in relation to the grain and green feed portions of the ration. Observation and diligent keeping of production records must be his guide. Unintentionally he may be wasting this precious substance. A gradual reduction in the amount of laying mash or concentrate laying mash, fed in relation to grains and green feeds, may indicate conclusively that, at a certain reduced level maximum egg production can be maintained and, at the same time, to financial advantage. Much can be accomplished in the conservation of essential feed if protein intake is not permitted to exceed the quantity that will result in maximum utilization of this precious substance. Such procedure, obviously, can be adopted by the skilled producer only.

For those who lack such skill a very simple and tested method of feeding offers great possibilities for accomplishing the same end, that is, the commonly called "free choice" method which requires simply that laying mash or concentrate laying mash, together with grain, be made available to birds at all times. On this subject the following brief quotations are illuminating:

"Chickens over three months old have the ability to choose an adequate ration for themselves when the correct variety of feeds is placed before them. This greatly simplifies the problem of feeding the back yard flock. Continuous access to a good laying mash and a mixture of whole grains, plus clean fresh

water provide the most important essentials of proper poultry nutrition. In addition to these, the birds should have access to grit or gravel for grinding purposes. Laying hens should also have access to oyster shells or limestone grit to provide calcium carbonate for making egg shells. Finally, tender green feed should be given whenever it is available." (W. E. Newton, Extension Specialist in Poultry, California Agricultural Extension Service.)

"Obviously, growing pullets, like layers, can be depended upon to balance their rations properly when they are given the free choice of whole grain (even whole wheat) and a mash of considerable range in protein content." (Ohio Experiment Station.)

"Feed cost per dozen eggs was lowest with birds on free choice of feeds." (Washington Agricultural Experiment Station.)

The vast importance of the science of poultry nutrition, and its practical application, is clearly shown by the following quotations:

"Good Feeds—The poultry producer must realize the importance of avoiding human food waste in feeding chickens. If the chicken feed

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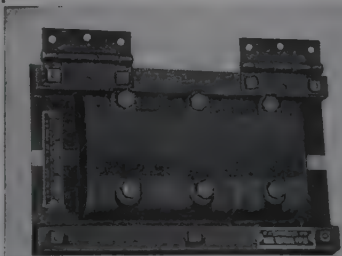
Feed Trade Manual

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is not nutritionally complete or properly balanced, eggs will be produced inefficiently and valuable food will be wasted." (Dr. Samuel Lepkovsky, Poultry Division, University of California.)

"We must reverse our thinking process and put feed ahead of food in our overall planning. If production goals are to be met we must feed animals properly, and that doesn't mean giving them 75% of their (nutritional) requirements," (Dr. R. M. Bethke, Animal Nutritionist, Ohio Agricultural Experiment Station.)

It is an accepted principle of poultry nutrition that abrupt changes of diet or method of feeding should never be made.

Oat Hull Factor Essential for Chick Growth

Experiments begun at the Iowa Agricultural Experiment Station and completed at the Ohio Agricultural Experiment Station are reported by Paul R. Record of the Ohio Station in Research Bulletin 312 on the Iowa State College of Agriculture.

The increasing amounts of whole oats being used in poultry rations, both for laying hens and chicks, and the apparent beneficial effects obtained have raised the question of the value derived from the hull portion of the oat grain in poultry feeding. To ascertain whether oat hulls contain some factor or factors essential for the growth of the chick, this series of experiments was conducted.

The oat hulls used in this study were a commercial product prepared from hulls procured as a by-product in the preparation of hulled oats; according to the manufacturer, they were practically free from other parts of the oat grain. A sufficient quantity of the hulls was procured in one shipment to complete the entire study.

The dried buttermilk used in experiments 7 and 8 of the studies comparing it with dried skimmilk was a sweet cream product, and that used in experiment 11 was a sour cream product. The dried skimmilk used in these trials was from the same manufacturer but was procured in different shipments. In experiment 12, the dried milks were made from the same supply of whole milk in the same plant. The ash content of the dried buttermilks in experiments 11 and 12 was 10.38 per cent and 10.41 per cent, respectively, and that of the dried skimmilks, 8.13 per cent and 8.26 per cent.

The alcohol extracts used in the trials reported in tables 1 and 5 were prepared in the following manner: To 4 kilos of yeast or oat hulls were added 20 liters of a 50 per cent (by volume) mixture of alcohol and water. The mixture was stirred for 1 hour and allowed to stand for 24 hours. At the end of this time, the supernatant liquid was drawn off, and the residue was again treated with 50 per cent alcohol, stirred and allowed to stand as before. This procedure was repeated four times. The extracts were combined, and the volume was reduced in a current of air at room temperature until 1 ml. represented 3 grams of yeast or 6g. of oat hulls. The residues from the treatments described were partially dried in a current of air at room temperature, and the drying was completed in an oven at 100° C.

All experiments were conducted with Single Comb White Leghorn chicks. After their removal from the incubator, the chicks were placed in electrically heated battery brooders equipped with wire floors. Individual weights were taken at weekly intervals. Feed and water were kept before the chicks at all times during the 8-week feeding period. The chicks were fed the basal ration during the first week, at the end of which they were weighed individually, banded, allotted into lots by weight, and started on their experimental rations. Feed consumption records were kept for each lot.

When 20 per cent of oat hulls was added to a ration composed of oat groats, minerals, cod-liver oil and dried skimmilk or dried buttermilk, an increase in growth resulted.

An increase in growth was obtained by sup-

plementing the alcohol-precipitate factor deficient ration of Schumacher et al with yeast or choline, and the occurrence of perosis was practically eliminated. The addition of 20 per cent oat hulls to this basal ration caused an increase in growth.

The results obtained when oat hulls were added to the two rations indicated that oat hulls contained a factor or factors present in yeast, dried skimmilk and dried buttermilk that are essential for the growth of the chick.

CONCLUSIONS.—Oat hulls contain some factor or factors essential for the nutrition of the chick. This factor or factors are also present in dried skimmilk and dried buttermilk. The amount of this factor or factors present in dried skimmilk and dried buttermilk appears to vary and is probably dependent upon the manufacturing process or the source of the milk.

Oat hulls contain a factor that appears to be identical with the alcohol-precipitate factor described by Schumacher and Heuser and found in dried brewer's yeast. The amount of this factor is several times greater in dried brewer's yeast than in commercial oat hulls.

Choline is essential for the nutrition of the chick; and 0.15 per cent or more almost completely prevented the incidence of perosis occurring on the Cornell ration.

The Cornell ration used in these experiments was deficient in more than one factor essential for normal growth of chicks. These factors were present in the dried brewer's yeast used.

Dried brewer's yeast, at a level of 5 per cent or more, promoted optimum growth and practically eliminated the occurrence of perosis.

Manganese for Chick Perosis

Several diseases and vices of chickens are caused by feeding diets that are deficient in one or more essential nutritive factors. Nutritional rump, rickets, "curled toe paralysis," chick dermatosis, "crazy chick" disease (nutritional encephalomalacia), gizzard erosion, and perosis are all the result of nutritional deficiencies. The first is caused by diets that contain too little vitamin A; the second by diets that contain too little vitamin D, too little calcium or phosphorus, or an improper balance of calcium and phosphorus. "Curled-toe paralysis" is caused by feeding diets that are deficient in vitamin G. A deficiency of pantothenic acid (chick antidermatosis factor) is the cause of chick dermatosis.

Perosis (slipped tendon, or hock disease) is caused by a deficiency of either manganese or choline, or both, in the diet of growing chicks. Under practical conditions it usually can be prevented merely by adding a very small quantity of manganous sulphate to the diet, because a deficiency of choline occurs more rarely than a deficiency of manganese. If the diet of laying chickens is deficient in manganese, the embryos develop abnormally, and hatchability is decreased.

Crazy chick disease is probably caused by a deficiency of vitamin E in the diet. In any case it is possible to stop the development of this disease and to cure many of the affected chickens by giving them synthetic vitamin E or by including 1 to 2 per cent of corn oil, peanut oil, soybean oil, or cottonseed oil in their diet.—Bull. 1841, U. S. D. A.

Seattle, Wash.—A barge load of 3,500 tons of Canadian wheat has arrived here from Vancouver, B. C., and the C.C.C. intends to move some more to San Francisco.

Officers Re-elected by Mutual Feed Dealers

Meeting at Jamestown, N. Y., Sept. 14, the Mutual Millers & Feed Dealers Ass'n re-elected the old officers, as follows: pres., Lewis Abbott, Hamburg, N. Y.; vice pres., Chas. L. Zortman, Edinboro, Pa.; sec'y-treas., Robert Gray, Springville, N. Y.

Directors: Roy Gravink, Clymer, N. Y.; Norman Godfrey, Attica, N. Y.

Riboflavin Content of Feeds

The Massachusetts Agr. Exp. Station assayed 70 samples by use of the fluorometric method (Coleman spectrophotometer). Amounts of riboflavin found in parts per million for several feeds were: skimmilk powder 17.7 to 21.6; dried buttermilk 27.3 to 30.7; meat scraps 6.3 to 8.6; animal liver meal 19.8 to 53.2; fish meal 5.6 to 11.8; fish liver meal 11.6 to 3.6; alfalfa meal 9.1 to 20.8, Cerogras 24.5; Flaydry 11.7; Flavonne 10.5; B-Y Concentrate 102.4; Paco Riboflavin Supplement 51.4; malt sprouts 10.5; corn distillers grains 0.6 to 3.9.

We used to have the people support the government; now we have the government supporting the people, on borrowed money.—Senator "Cotton Ed" Smith, South Carolina.

Aluminum may now be used in specified parts of respirators, gas masks, oxygen breathing apparatus and goggles where other less scarce materials are not practicable; magnesium in place of aluminum is required wherever practicable. Among other changes are: restrictions on use of magnesium are removed. — Order L-114 of W.P.B.

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Report of Pacific Slope Feed Council

Richard J. Smith, general chairman of the Pacific Slope Feed Council, reports that on Sept. 15 indications on a voluntary basis are that approximately 70% of this season's California fish meal production would be retained for the Pacific Slope states. This percentage is not as large as retained in 1941 but greater than the tonnage remaining in this area in 1942.

MOLASSES.—The over-supply, in fact burdensome tonnage of cane molasses, in Hawaii and California ports, has reached the point where storage facilities are taxed beyond capacity to handle additional shipments from the Hawaiian Islands. We are informed that present supplies of molasses are more than ample for all purposes, both for industrial and feeding purposes on the Pacific Coast. Capacity of Coast alcohol distillation plants are limited, also transportation to the Midwest is not practicable due to long haul and tank car shortage. We quote a wire sent to Washington on this subject:

Mr. Marvin Jones, War Food Administration, United States Department of Agriculture, Washington, D. C.

"Request your office endeavor have War Production Board remove all restrictions on Cane Molasses for mixed feed purposes in Pacific Slope States. Understand present Pacific Coast stock pile Molasses above normal requirements. Feed manufacturers and stockmen this area must take immediate steps to meet critical feed shortage. If some assurance that increased Molasses tonnage made available will plan accordingly."

Signed—Pacific Slope Feed Council.

Apparently the Council can aid considerably in having this condition corrected in bringing to the attention of State Senators, Congressmen and War Boards, this molasses situation. If it becomes necessary to take such action we will advise.

SOYBEANS.—From all indications only a small quantity of soybean meal for feeding purposes will reach the Pacific Slope states from new crop beans. Many of the Middle Western soya plants are being converted to the production of soybean flour for human consumption with the result the quantity of meal produced in the Middle West could easily be fed in that area. We are advised that only the best beans can be used for soybean flour production with the result No. 3, or sample beans as they are called, are used for soybean meal production. This type of bean is quite satisfactory for this purpose. The Council is now making a survey of the Pacific Coast oil seed crushers and expects to learn how many of these plants would crush soya beans if they were made available. It is reported that beans will go to the Southern States for production of soybean meal. This

section is not as deficient in vegetable protein as the Pacific Slope.

Wallace Says Feed Business Is Ideal

By H. L. SPOONER

The feed and seed business is ideal for men who know feeds and seeds and who are incapacitated for steady hand manual labor, says J. R. Wallace, Cornell, Ill. Mr. Wallace is a man in his sixties and somewhat crippled from work as a farmer.

He operated a farm near Cornell, a town of 450, for many years. He moved to Iowa City, Iowa, several years ago, where he was employed in a seed store. He then opened his own seed store in the same city. He operated this for three years. Mrs. Wallace then wished to return to Cornell where a farm had been left to her. The couple, with their son, returned. The son took over the operation of the farm.

The elder Wallace was not satisfied to retire. He had always been active and he couldn't stop now. Therefore he rented a 24 x 50 store building and started a seed store. That was three years ago.

A month after starting, he decided to add feeds although his place of business was next door to another feed outlet and there was a grocery store handling feeds across the street. He selected a nationally-known brand of feeds. His initial purchase was 40 bags. This was in the fall. Neighbors told him he was foolish to start with so much competition and especially to start next door to an established feed business. They predicted that he would not sell the 40 bags all winter. However, the 40 bags were gone in three weeks. His business kept increasing. About a year later the grocery store sold its stock of feeds to his next-door competitor. A year ago the neighbor went out of business.

When feed shortages developed, he could not secure feeds to any extent from the manufacturers so he switched to another brand. The manufacturer of his new brand soon had difficulty in supplying feeds. Last February, he took on the Honegger brand. This feed is made only thirty miles away. While this concern is also short, it is doing a good job.

Cornell has too limited a territory to make any great big success, having several large towns close by, but Mr. Wallace is averaging about 300 bags a month. Right now he could sell more if he could get them. He now has orders ahead for each weekly shipment as it arrives. It is delivered by truck. With the present shortage, he sometimes can get only a half-truck load at a time, the manufacturer delivering the other half to some other dealer enroute.

Fully 80 per cent of sales are poultry feeds, and the rest dairy and hog feeds. Due to government inducement for larger poultry crops, there is more poultry being raised in the district this year than ever before. Quite a number of village residents have sizeable flocks of chickens this year. Some of these residents do not operate cars and to these Mr. Wallace delivers feeds in his own car. He does not operate a truck and he does not deliver outside of the village.

In addition to feeds, Mr. Wallace sells hybrid seed corn and all other kinds of farm seeds, including alfalfa, grass seeds and soy beans. He also sells garden seeds in bulk and package, a few specialties in poultry remedies and binder twine.

Mr. Wallace at first used some advertising in the local weekly. At present he has no difficulty in selling what feeds he can get. He uses window displays when he can get enough feed to make them.

Thirty-five produce wholesalers of Chicago, whose names were withheld, paid voluntarily \$10,000 in trifle damages for violating ceiling prices on lettuce and dry onions.

Broader Restriction on Truck Deliveries

The Office of Defense Transportation announced on Sept. 15 that the limitation on wholesale and retail deliveries contained in ODT Order No. 17 will become effective everywhere on Oct. 11, thru Amendment 3B.

Animal feeds may be delivered to farmers provided that such deliveries are made only to a farm and in a vehicle engaged exclusively in the transportation of farm supplies. This exception is made under general permits, previously issued by the ODT, exempting trucks engaged exclusively in transportation of farm supplies from certain provisions of ODT orders.

"Farm supplies" includes any article intended for use in the operation of a farm. However,

KELLY DUPLEX

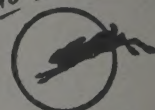
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Contains a background of the poultry industry, the fundamental principles involved in various poultry practices, and important economic factors in producing and marketing poultry products. 548 pages, 167 illustrations. Weight 3 lbs. price \$4.00 plus postage.

TURKEY MANAGEMENT—Maraden and Martin

Because of the recognized ability of the authors, this, the first complete, non-technical treatise on turkey production should prove of great value to both large and small producers. 708 pages, 17 chapters, appendix and thorough index, 120 illustrations. Weight 3 lbs. price \$3.50 plus postage.

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it is only when farm supplies are being transported to a farm that the vehicle comes within the exemptions and the vehicle must be engaged in the transportation of farm supplies exclusively.

Wholesale deliveries of feed to a retailer are limited to two per week, except that the limitation does not apply to a one-stop wholesale delivery directly to a single consignee where a full load is carried on the largest motor truck owned. The restriction does not apply on deliveries from a mill to its own branch warehouse.

Custom Millers on Essential List

Custom grist mills and commercial poultry hatcheries have been added to the list of essential activities, by the War Manpower Commission.

Sweet Potatoes for Feed

High yields of sweet potatoes for feed or starch purposes are dependent on cultural and fertilizer practices. More starch per acre can be produced from sweet potatoes than any other commercial crop in the U. S. This is also true for carbohydrate livestock feed. Chemical analyses were made on sweet potatoes planted in April, May and June and harvested from July to November. In general, the greatest starch yields were obtained from the longest growing period. The starch content may vary as much as 10% in a single variety; the range being from 17 to 20%. The reducing sugars varied from 0.14 to 0.71% and the total sugars as invert from 1.5 to 2.0%. A minimum growing period of 4 months is recommended.—Louisiana Agr. Exp. Station.

C.C.C. Contract Offered Crushers of Soybeans

The Commodity Credit Corporation has submitted to processors of soybeans a contract on the 1943 crop very much the same as the 1942 contract.

The price is changed in line with the higher O.P.A. ceiling.

It is expected that the present limits on inventories will be retained, with a new restriction against selling meal beyond 60 days' delivery.

A clause of the order is expected to provide that no one may process soybeans unless he has a contract with the C.C.C.

Processors may buy from producers, dealers or elevator operators, in quantities not more than each can process before Oct. 10, 1944, at prices ranging (for beans of 11% or less moisture) from \$1.66 to \$1.86 bu., subject to already announced discounts for test weight, moisture, splits, damage, foreign material.

Processors then will sell these beans to C.C.C. at \$1.80 bu. for classes green and yellow and \$1.60 for classes brown, black and mixed in store at processors' plant or warehouse.

C.C.C. will then resell the beans to processors immediately at a "base chemical grade price," figured from a chart listing a range from \$2.257 bu. for solvent extraction plants to \$2.07 for old type expeller plants, subject to a series of discounts for processing margin and elevator storage which ranges from 32c bu. for large expeller and French plants to 39c for small solvent and hydraulic plants.

The soybean contracts contain an offer by the C.C.C. to buy any meal offered by processors on or before Sept. 30, 1944, at \$43 ton, bulk, f.o.b. plant, plus the cash surrender value of such unexpired inbound freight billing as may be accepted by the C.C.C.

The contract also contains a section on freight adjustments on soybean oil meal, which are de-

signed to net each processor the same price for meal regardless of where he is located. The base taken is Decatur, Ill. Under these provisions, the meal price would always be figured on the basis of Decatur plus freight, regardless of where the meal was made. The freight adjustments concern crushers, but do not affect buyers of the feed, as the Decatur base plus freight is the pricing system employed in the O.P.A. regulation covering soybean oil meal.

Processors have suggested minor changes in the contract for the elimination of clerical details and for clarification of the subsidy to operators of expellers.

Manpower Essential Activities

The War Manpower Commission in reissuing its list of essential activities has included the amendments that have been made from time to time.

Included in the list are production of grain mill products, prepared feeds for animals and fowls, starch, cereals, corn syrup, commercial poultry hatcheries, initial processing services such as shelling and cleaning crops, production of hybrid seed corn.

Waste peanut hulls are made into a substitute for cork in bottle caps by a process discovered after four years of work by Herman M. Kuhlman of the Georgia Experiment Station. Dr. T. G. Woodruff, food technologist at the Station, tested the peanut hull corks for canning and preserving and found they stood up under strenuous tests.

The difference between O.P.A. ceiling prices and W.F.A. support prices of beans has tied up the bean harvest in Nebraska, as the processors demand 75c for cleaning while the growers insist on 56c per 100 lbs. Rep. A. L. Miller says that "the situation emphasizes more and more that there must be one responsible head dealing with food."—P. J. P.

Grain Receiving Books

Grain Receiving Register for recording loads of grain received from farmers. It contains 200 pages of ledger paper $8\frac{1}{2} \times 13\frac{1}{2}$ inches, capacity for 8,200 loads. Some enter loads as received, others assign a page to each farmer, while others assign sections to different grains. Bound in strong board covers, canvas back. Headings of columns are: "Date, Name, Kind of Grain, Gross, Tare, Net, Bushels, Pounds, Price, Amount, Remarks." Weight, 2½ lbs. Order Form 12AA. Price \$2.75, plus postage.

Wagon Loads Received has columns headed: "Month, Day, Name, Kind, Gross and Tare, Net Pounds, Bushels, Pounds, Price, Dollars and Cents, Remarks." Contains 200 pages of ledger paper size $9\frac{1}{4} \times 12$ inches, providing spaces for 4,000 loads. Bound in heavy boards with strong cloth covers and keratol corners and back. Weight, 2 lbs. Order Form 389. Price, \$2.75, plus postage.

Receiving and Stock Book is arranged to keep each kind of grain in separate column so each day's receipts may be easily totaled. It contains 200 pages linen ledger paper size $9\frac{1}{4} \times 12$ inches, ruled for records of 4,000 loads. Well bound in black cloth and keratol back and corners. Shipping weight, 2½ lbs. Order Form 321. Price \$2.75, plus postage.

Grain Receiving Ledger has 200 pages linen ledger paper and 28-page index, $8\frac{1}{2} \times 13\frac{1}{2}$ inches, numbered and ruled for 44 entries. Well bound in pebble cloth with keratol back and corners. Weight, 3 lbs. Order Form 43. Price, \$3.35, plus postage.

Grain Scale Book is designed to assign separate pages to each farmer and their names can be indexed so their accounts can be quickly located. It contains 252 numbered pages and 28-page index, of high grade linen ledger paper $10\frac{1}{2} \times 15\frac{1}{2}$ inches. Each page will accommodate 41 wagonloads. Well bound with heavy board covers with cloth sides and keratol back and corners. Weight, 4½ lbs. Order Form 23. Price \$4.50, plus postage.

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Dust can be controlled. Engineering service is a part of Mill Mutual Insurance and our Dust Control Bulletins and Engineering Data are offered without obligation to the milling and grain trade.

Mill Mutual Fire Prevention Bureau

400 West Madison Street
Chicago, Illinois

EFFECTIVE AND ECONOMICAL DUST CONTROL



is the result of

EXPERIENCE!

OUR SERVICE IS COMPLETE —

1. **EFFICIENT EQUIPMENT**
for all dust control problems.
2. **PROPERLY ENGINEERED**
to meet individual requirements.
3. **EXPERTLY INSTALLED**
by capable, well trained mechanical force.

Only three elements are necessary to produce a dust explosion. These elements are:

- 1—Dust in Suspension
- 2—Oxygen
- 3—A source of ignition

Eliminate one of these factors and an explosion is impossible. Most easily eliminated is dust in suspension.

Write for bulletin

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810 3rd Ave., N.E.

Minneapolis, Minn.

In Canada: The Day Company of Canada, Ltd.

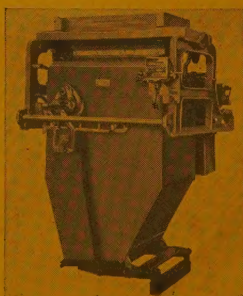
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In these busy times, mill and elevator hands are more apt to make errors in weighing grain. Moreover errors of overshipment cost you more profits. Protect yourself against loss of money and good will with a RICHARDSON GRAIN SHIPPING SCALE. This truly automatic machine avoids all errors common to man-operated scales. What's more, it releases the weighman for other work.

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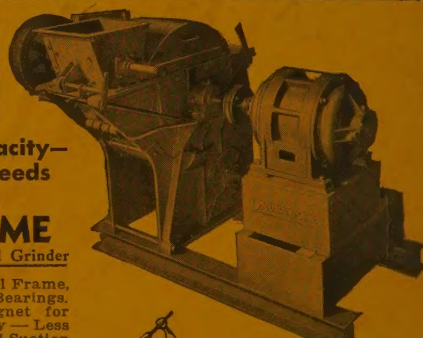
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